PERIODICAL Denmark. Dan. Fisk. Hav.
11, no.1 Meddl. Serie: Fisk.
LIBRARY
FISH & WILDLIFE SERVICE
PACIFIC OCEANIC FISHERY
INVESTIGATIONS
11(1

MEDDELELSER

FRA

KOMMISSIONEN FOR DANMARKS FISKERI- OG HAVUNDERSØGELSER

SERIE: FISKERI · BIND XI

NR. 1. HERMANN EINARSSON: SURVEY OF THE BENTHONIC ANIMAL COMMUNITIES OF FAXA BAY (ICELAND)

KØBENHAVN
C. A. REITZELS FORLAG
BIANCO LUNOS BOGTRYKKERI A/S
1941

MEDDELELSER FRA KOMMISSIONEN FOR HAVUNDERSØGELSER

Serie: Fiskeri.

Bind I.

Nr. 1 C. G. Joh. Petersen: On the larval and postlarval stages of the long Rough Dab and the Genus Pleuronectes. 2 Plates. 1904. 13 p. Kr. 1.00.

» 2 A. C. Johansen: Contributions to the biology of the Plaice with special regard to the Danish Plaice-Fishery. I. 12 Plates. 1905. 70 p. Kr. 5.25.

» 3 Johs. Schmidt: On pelagic post-larval Halibut. (Hippoglossus vulgaris Flem. and H. hippoglossoïdes Walb.) 1 Plate. 1904. 13. p. Kr. 0.75.

» 4 Johs. Schmidt: De atlantiske Torskearters (Gadus-Slægtens) pelagiske Yngel i de postlarvale Stadier. Med 3 Tavler og 16 Figurer. 1905. 74 S. Kr. 3.00.

» 4 Johs. Schmidt: The pelagic post-larval stages of the Atlantic Species of Gadus. A Monograph with 3 Plates and 16 Figures in the Text. 1905. 77 p. Kr. 3.00.

» 5 C. G. Joh. Petersen: Larval Eels (Leptocephalus brevirostris) of the Atlantic coasts of Europe. 1905. 5 p.

» 6 A. C. Johansen: Remarks on the life history of the young post-larval Eel (Anguilla vulgaris Turt.) 1904. 9 p. Kr. 0.50.

» 7 Adolf Sev. Jensen: On fish-otoliths in the bottom-deposits of the Sea. I. Otoliths of the Gadus-Species deposited in the Polar Deep. 4 Fig. 1905. 14 p. Kr. 0.50.

» 8 Johs. Schmidt: On the larval and post-larval stages of the Torsk (Brosmius brosme [Ascan.]) 1 Plate. 1905. 12 p. Kr. 0.75.

Bind II.

» 1 C. G. Joh. Petersen: On the larval and post-larval stages of some Pleuronectidæ (Pleuronectes, Zeugopterus.) 1 Pl. 1906. 10 p. Kr. 0.50.

» 2 Johs. Schmidt: The pelagic post-larval stages of the Atlantic species of Gadus. A monograph. Part II. 1 Pl. 1906. 20 p. Kr. 1.00.

» 3 Johs. Schmidt: On the pelagic post-larval stages of the Lings (Molva molva [Linné] and Molva byrkelange [Walbaum]). With 1 Pl. and 3 Figures. 1906. 16 p. Kr. 0.75.

» 4 Johs. Schmidt: On the larval and post-larval development of the Argentines (Argentina silus [Ascan.] and Argentina sphyræna [Linné]) with some Notes on Mallotus villosus [O. F. Müller]. 2 Pl. 1906. 20 p. Kr. 1.50.

» 5 A. C. Johansen: Contributions to the biology of the Plaice with special regard to the Danish Plaice-Fishery. II. The marking and transplantation experiments with Plaice in the years 1903—06. 9 Pl. and 10 Figures. 1907. 122 p. Kr. 5.25.

» 6 Johs. Schmidt: Marking experiments on Plaice and Cod in Icelandic waters. 2 Charts. 23 p.

» 7 Johs. Schmidt: On the post-larval development of the Hake (Merluccius vulgaris Flem.) 1 Pl. 4 Figures. 1907. 10 p. Kr. 1.75.

» 8 Johs. Schmidt: On the post-larval development of some North Atlantic Gadoids (Raniceps raninus [Linné] and Molva elongata [Risso]). 1 Pl. and 1 Fig. 1907. 14 p. Kr. 0.75.

» 9 Johs. Schmidt: On the post-larval stages of the John Dory (Zeus Faber L.) and some other Acanthopterygian Fishes. 1 Plate. 1908. 12 p. Kr. 0.75.

Bind III.

» 1 C. G. Joh. Petersen: On the larval and post-larval stages of some Pleuronectidæ (Zeugopterus, Arnoglossus, Solea.) 2 Plates. 1909. 18 p. Kr. 1.25.

» 2 J. P. Jacobsen and A. C. Johansen: Remarks on the changes in specific gravity of pelagic fish eggs and the transportation of same in Danish waters. 2 Figures. 1908. 24 p. Kr. 0.75.

» 3 Johs. Schmidt: Remarks on the metamorphosis and distribution of the larvae of the Eel (Anguilla vulgaris Turt.). 1 Pl. and 1 Chart. 1909. 17 p. Kr. 1.00.

Nr. 4 A. C. Johansen: Contributions to the biology of the Plaice with special regard to the Danish Plaice-Fishery. III. On the variation in frequency of young Plaice in Danish waters in 1902—07. 12 Figures. 1908. 48 p. Kr. 1.50.

» 5 A. C. Johansen: Do. do. do. IV. Is the Plaice indigenous to the true Baltic? 2 Fig. 1908. 23 p. Kr. 0.75.

» 6 Johs. Schmidt: On the occurrence of Leptocephali (Larval Muraenoids) in the Atlantic W. of Europe. 2 Pl. & 1 Chart. 1909. 19 p. Kr. 1.50.

» 7 Johs. Schmidt: On the distribution of the fresh-water Eels (Anguilla) throughout the world. I. Atlantic Ocean and adjacent regions. A bio-geographical investigations. 1 Chart. 1909. 45 p. Kr. 1.75.

» 8 A. C. Johansen: Bericht über die dänischen Untersuchungen über die Schollenfischerei und den Schollenbestand in der östlichen Nordsee, dem Skagerak und dem nördlichen Kattegat. Mit 10 Figuren im Text. 1910. 142 S. Kr. 4.50.

Bind IV.

» 1 A. C. Johansen: Contributions to the biology of the Plaice with special regard to the Danish Plaice-Fishery. V. The supposed migrations of plaice from the Kattegat and Belt Sea to the true Baltic. 5 Figures. 1912. 34 p. Kr. 1.25.

» 2 Johs. Schmidt: On the identification of Muraenoid larvae in their early (»Preleptocephaline«) stages. 1 Plate. 1913. 14 p. Kr. 0.75.

» 3 A. C. Strubberg: The metamorphosis of elvers as influenced by outward conditions Some experiments. 1913. 11 p. Kr. 0. 50.

» 4 A. C. Johansen: Contributions to the biology of the Plaice with special regard to the Danish Plaice-Fishery. VI. On the immigration of plaice to the coastal grounds and fiords on the west coast of Jutland. 1913. 26 p. Kr. 1.00.

» 5 P. L. Kramp: Report on the fish eggs and larvæ collected by the Danish research steamer »Thor« in the Langelandsbelt in 1909. With 6 Figures in the text. 1913. 39 p. Kr. 1.25.

» 6 Bjarni Sæmundsson: Continued marking experiments on plaice and cod in Icelandic waters. 7 Fig. 1913. 35 p. Kr. 1.25.

» 7 Johs. Schmidt: On the classification of the freshwater Eels (Anguilla). 1915. 19 p. Kr. 0.75.

» 8 Ö. Winge: On the value of the rings in the scales of the Cod as a means of age determination. Illustrated by marking experiments. 1916. 21 p. Kr. 0.75.

» 9 A. C. Johansen: Contributions to the biology of the Plaice with speciel regard to the Danish Plaice-Fishery. VII. Marking experiments with plaice in the North Sea off the west coast of Jutland during the years 1906—1912. With supplementary observations on the previous Danish experiments. 27 Fig. 1915. 60 p. Kr. 2.00.

Bind V.

» 1 Johs. Schmidt: Marking experiments with Turtles in the Danish West Indies. With 5 Tables and 11 Fig. 1916. 26 p. Kr. 1.00.

» 2 A. C. Strubberg: Marking Experiments with cod at the Færoes. 24 Fig. 1916. 126 p. Kr. 4.00.

» 3 A. C. Johansen: Marking Experiments with Sole (Solea vulgaris Quensel) and Turbot (Rhombus maximus L.) in the Kattegat and Baltic Waters: 4 Fig. 1916. 18 p. Kr. 0.50.

» 4 Johs. Schmidt: On the early larval stages of the Fresh-Water Eels (Anguilla) and some other North Atlantic Murænoids. 4 Plates and 14 Fig. 1916. 20 p. Kr. 175.

» 5 P. Jespersen: Contributions to the Life-History of the North Atlantic Halibut (Hippoglossus vulgaris Flem.) 1 Plate and 16 Fig. 1917. 32 p. Kr. 1.50.

MEDDELELSER FRA KOMMISSIONEN
FOR DANMARKS FISKERI- OG HAVUNDERSØGELSER
SERIE: FISKERI · BIND XI · NR. 1 · 1941

SURVEY OF THE BENTHONIC ANIMAL COMMUNITIES OF FAXA BAY (ICELAND)

BY

HERMANN EINARSSON

KØBENHAVN
C. A. REITZELS FORLAG
BIANCO LUNOS BOGTRYKKERI A/S
1941

CONTENTS

		Page
I.	Introduction	3
II.	The natural conditions of Faxa Bay	6
	1. Hydrography	6
	2. The bottom conditions	8
	3. Conclusions	10
III.	The benthonic animal communities of Faxa Bay	11
	A. Communities of the shallower and deeper clay bottom	11
	1. The *Macoma calcarea* community	11
	2. The *Brissopsis lyrifera* community	16
	B. Communities of the gravel, the sand and the mixed bottom	18
	3. The *Spisula elliptica* community	18
	a. The fauna of the gravel and the coarse sand	18
	b. The fauna of the sand	19
	4. The *Echinocardium flavescens* community	21
	C. The epifauna	22
	5. The *Mytilus edulis* epifauna	22
	6. The *Modiola modiolus* epifauna	22
	a. The *Modiola-Potamilla* epifauna	22
	b. The epifauna of the rock	24
	D. General remarks and conclusions	26
IV.	A faunistic review of the various species of Polychæts, Molluscs and Echinoderms found in the bottom samples taken with the Petersen grab in Faxa Bay 1926—1939	30
	1. Polychæta	30
	2. Mollusca	33
	3. Echinodermata	36
	4. Conclusions	36
Appendix. List of stations operated in Faxa Bay 1926—1939		38
References		42
Dansk Resumé		44
Tables I—VI		

I. Introduction.

The material on which the present paper is mainly based was collected by the Danish research vessel "Dana" during the summer of 1939, when the author had the opportunity of working on board the ship. By the courtesy of "Kommissionen for Danmarks Fiskeri- og Havundersøgelser" this material was put at my disposal for the present investigations and for this I offer my most sincere thanks. In the southern part of Faxa Bay three sections were worked up, and some further samples were secured outside of these. In the deeper parts of the bay another three sections were worked up. The localities investigated during this summer amounted to 58 (Station nos. between 6122 and 6182).

Further I have had at my disposal samples taken by the Icelandic research vessel "Þór", in the winter of 1938. The stations are situated on sections from Garðskagi NW. to Jökuldjúp, from Jökuldjúp NE. to Hafursfjörður and then southwards along the coast to the Hvalfjörður (Station nos. between 1 and 44). I take the opportunity of expressing my thanks to the Director of the Marine Biological Laboratory in Reykjavík, Mag. sc. Árni Friðriksson, for entrusting this material to me.

I am also much indebted to Prof. R. Spärck, who put at my disposal some samples taken by "Dana" in 1927 and not yet worked up (Station nos. between 3132 and 3209). These are from 21 localities.

The total number of localities considered in this paper is thus 123. Their positions are shown in fig. 2.

All the samples were taken by means of Petersens large (0.2 sq.m.) grab. In places, especially on hard sand bottom, where the grab did not function well, two samples were taken, whereas in places where the grab worked satisfactorily only one sample was taken. The mesh-width of the sieves in use were 1.5 m/m., 4 m/m. and 15 m/m. The material was preserved in alcohol, and after arriving in Denmark, sorted out and weighed in the Zoological Laboratory of Copenhagen. When calculating the totals I have augmented the alcohol weight by 10 per cent.

In the case of the Polychæts the weights are undoubtedly too low. This is due to the circumstance that in many cases there were only fragments of the animals left, and no attempt has been made to correct this. The sedentary Polychæts were weighed without the tubes; in case of great number a representative sample was taken out of the tubes and the weight calculated on the basis of the average weight of the animal.

The weighings of preserved material are somewhat unsatisfactory, it is true, but as the research vessels can only spare a very limited time to these investigations, a more accurate method cannot be used. For these preliminary investigations, the accuracy obtained can in most cases be considered satisfactory.

For help during the identification of the material, I am indebted to the specialists of the Zoological Museum of Copenhagen, especially Dr. phil G. THORSON (Molluscs), Mr. S. HEDING (Echinoderms) and Mag. sc. E. WESENBERG-LUND, who has checked some of my identifications of Polychæts. Further I wish to express my sincere thanks to Prof. R. SPÄRCK and the

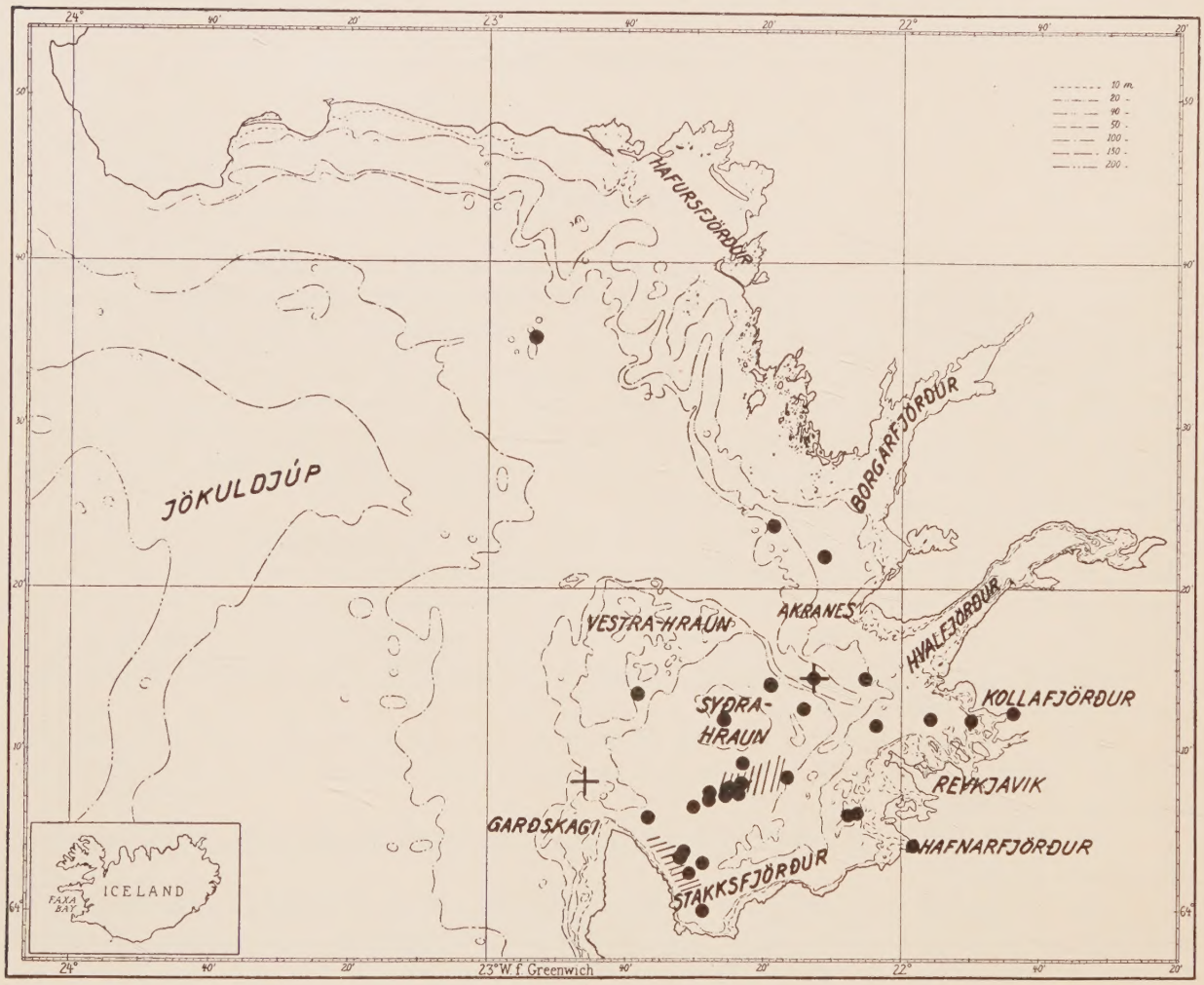

Fig. 1. Localities mentioned in the text. ● = Positions of stations previously operated (see text). + = the fixed hydrographical stations, Akranes and Skagi. The hatched areas indicate the territorial and extraterritorial trawling stations.

Director of the Marine Biological Laboratory, Charlottenlund Slot, Dr. phil. Å. VEDEL TÅNING, for their promotion of and interest in the work.

Although considerable collections of bottom invertebrates from Faxa Bay are available, this fauna is far from well known, especially as to the distribution of the different species inside the bay, as most of this material is still under treatment. Only as regards the *Crustacea* this zoogeographically important work is almost finished; the results are being published by K. STEPHENSEN, in "The Zoology of Iceland" (Vol. III, pt. 25, 26, 27, 29, 30—31 and 32).

Concerning other animal groups that distinguish the bottom fauna of the bay, namely Molluscs, Echinoderms and Polychæts, only papers of earlier date exist.

Of these groups the *Molluscs* are treated in great detail, by G. B. BÁRÐARSON, who in his work: "Om den marine Molluskfauna ved Vestkysten af Island" (1920) gives us much valuable information about the distribution of the species, with references to earlier literature.

As to the *Polychæts*, the collections of the Zoological Museums in Copenhagen and

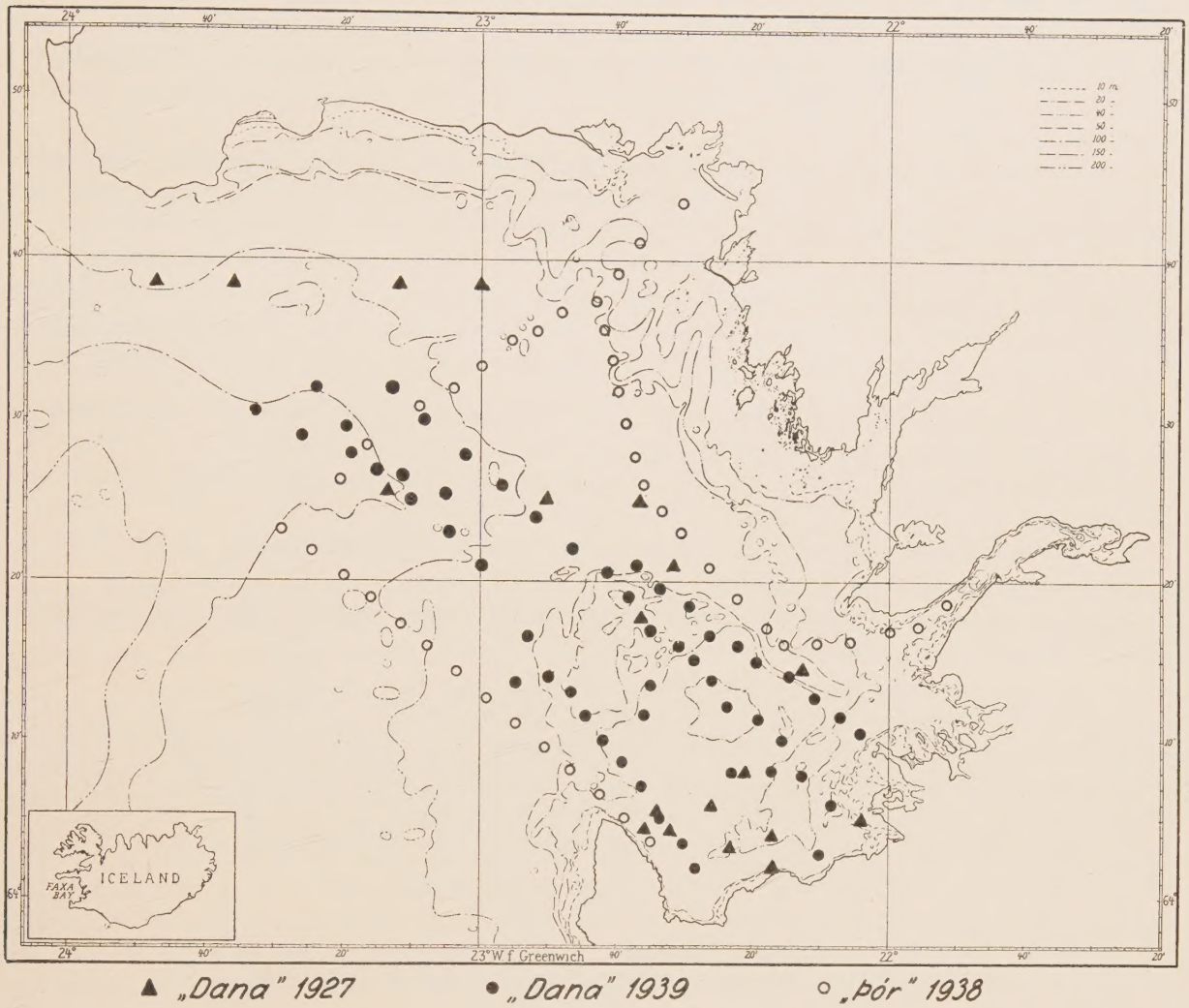

Fig. 2. Positions of localities where bottom samples were secured for the present investigation.

Reykjavík were worked up by SÆMUNDSSON (1918). This work still stands as our main source of information with regard to the species of this group occurring in Icelandic waters.

The *Echinoderms* found around Iceland have never been subjected to general treatment. Scattered remarks are, however, found in various papers, especially in those from the "Ingolf-Expedition" (MORTENSEN 1907, 1933), though only little concerning the Echinoderm fauna of Faxa Bay.

In view of our fragmentary knowledge, both of the species of these animal groups, and of their distribution inside the bay, it seemed to me of interest to compile the list given below of the species occurring in the bottom samples.

In the following references will be made to analyses of stomach contents of the Plaice and the Haddock carried out during recent years by scientists working on board the Danish research vessel "Dana". As but little is known about the food of these fishes in Faxa Bay, these analyses, it seems to me, give us some indications as to the importance of the bottom fauna as food for these fishes. I will here thank Dr. Å. Vedel Tåning for allowing me to use the journals of "Dana" to this end. The only information published on this matter we owe to Jespersen (1926) which treats of the food of the Halibut in Faxa Bay, and to Sæmundsson, who in his work on the Icelandic fishes (1926) makes some remarks on stomach contents examined by him.

There are two fixed trawl stations in the Faxa Bay, situated respectively territorially (64°03′ N.—22°33′ W.) and extraterritorrially (64°08′ N.—22°22′ W.), which have provided the material for these analyses.

Bottom investigations in Faxa Bay by means of the Petersen grab were begun in 1926, and carried further in 1927. Spärck has laid down the results of these investigations in various papers (1929, 1936 a, 1937). The position of the localities considered by him is shown in fig. 1. The existence of the following animal communities was ascertained in the bay (Spärck 1929):

1. The Modiola modiolus epifauna, occurring on stony and gravelly bottom off Akranes, off Hafnarfjörður and in the northern part of the bay.
2. The Macoma calcarea community, in the southernmost part of the bay and the fjords.
3. The Spisula elliptica community, with a wide distribution outside the *Macoma calcarea* community in the southern part of the bay.
4. The Axinus flexuosus community, in the deeper clay of Hvalfjörður[1]) and probably in Jökuldjúp, the deepest part of Faxa Bay proper.

The present work is a direct continuation of the work here referred to. On one side it seemed to be of interest to try to ascertain in greater detail the limits of the communities described by Spärck, and on the other side, to carry out some further investigations in the deeper parts of the bay, the bottom fauna here being practically unknown. The results thus obtained should render it possible to begin a more planned study of the different communities from the point of view of fishery biology.

II. The Natural Conditions of Faxa Bay.

1. Hydrography.

The water masses of Faxa Bay are made up of two elements i. e. the coastal water that is found in a belt of varying breadth all along the coast of Iceland with salinities below 35 ‰, and the Atlantic water carried with the residual current with salinities over 35 ‰. Salinity determinations of the bottom water have been made at some 50 different stations in the bay (see Appendix), and it appears from these, that while the shallower parts inside the 50 m. limit are usually covered with coastal water, depths exceeding 70 m. always have water of Atlantic origin. The salinity of the coastal water lies generally between 34.5 ‰ and 35 ‰;

[1]) In 1937 Spärck discussed this community further and named it the *Yoldia hyperborea* community. The conditions in the Hvalfjörður are, in the present paper, left out of consideration.

only in the fjords salinities lower than 34.4 $^{0}/_{00}$ have been recorded. During recent years the variations of the coastal water have been studied more closely at two fixed stations in the bay. The one (Station Akranes) is situated in the deep channel off Akranes at 64°14′5″ N.—22°13′ W. (50 m.), the other (Station Skagi) north of Garðskagi at 64°08′ N.—22°46′ W. (50 m.). See fig. 1.

As will be seen from table 1 the range of temperature is greater at Akranes Station than at Skagi Station and both maximum and minimum temperature lower. As to the salinity, the

Table 1.

Observed maximum and minimum values of temperature and salinity at Skagi Station and Akranes Station.

	Skagi		Akranes	
	Temperature	Salinity	Temperature	Salinity
Maximum	11.28	35.12	10.07	35.17
Observed	9-8-'28	18-7-'29	10-9-'34	7-7-'31
Minimum	3.34	34.43	1.42	34.52
Observed	27-4-'32	29-8-'30	2-3-'36	13-1-'27
Range	7.94	0.69	8.65	0.65

range is slightly less at Akranes than it is at Skagi. This is explained by the position of the two stations, Skagi Station being greatly influenced by the warmer water of the south coast brought along with the residual current.

The mean bottom temperatures of these stations are plotted in the diagram fig. 3. (The data are derived from Thomsen 1938). As will be seen, the temperature begins to rise at both stations in March, and reaches its maximum at Skagi Station in August with 9.85° C., and at Akranes Station in September with 9.50° C. mean temperature. The minimum is reached at both stations in January, at Skagi Station with 3.93° C. and at Akranes Station with 2.80° C. mean temperature. In the diagram fig. 4 the mean bottom salinities of the same stations are plotted. It will be seen that during the winter the salinity is higher at Skagi Station; in the summer they are practically the same, while in August—September there is a marked decrease in salinity at Skagi not observed at Akranes. The low salinity at Akranes Station during the winter is probably due to the fact that it is situated not far from the river mouth of Hvítá. As there is no thermal stratification and the effect of the wind is very strong at this time of the year the entire water column will mix with fresh water from the river, while in the summer the fresh water will not penetrate so far down.

The low salinity at Skagi in late summer is, on the other hand, probably due to the greater precipitation, which reaches its maximum in September when enormous masses of fresh water are emptied into the ocean by the rivers running to the south coast. And, as previously mentioned, Skagi Station is greatly influenced by the coastal water of the south coast.

The tidal currents of Faxa Bay are rather strong. The flood goes in an easterly direction along the south coast of the bay, and in the middle of the bay in a more northeasterly direction. According to Jacobsen and Jensen (1926) the greatest velocity of the tidal current observed was 17.9 cm./sec.

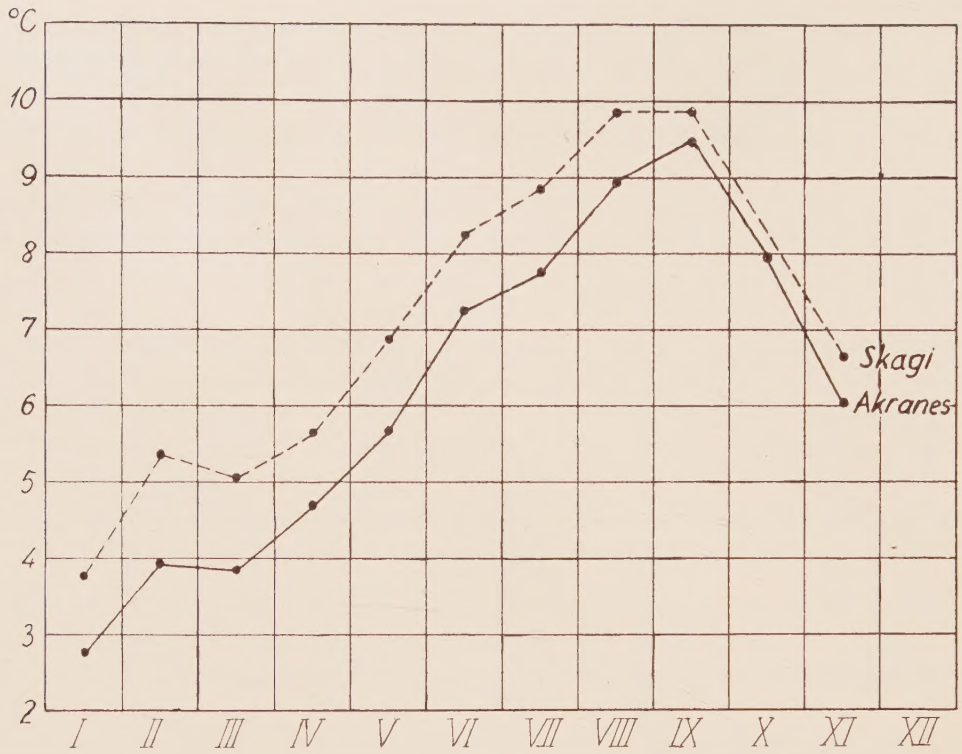

Fig. 3. Variation of mean bottom temperatures at Skagi Station and Akranes Station during the year.

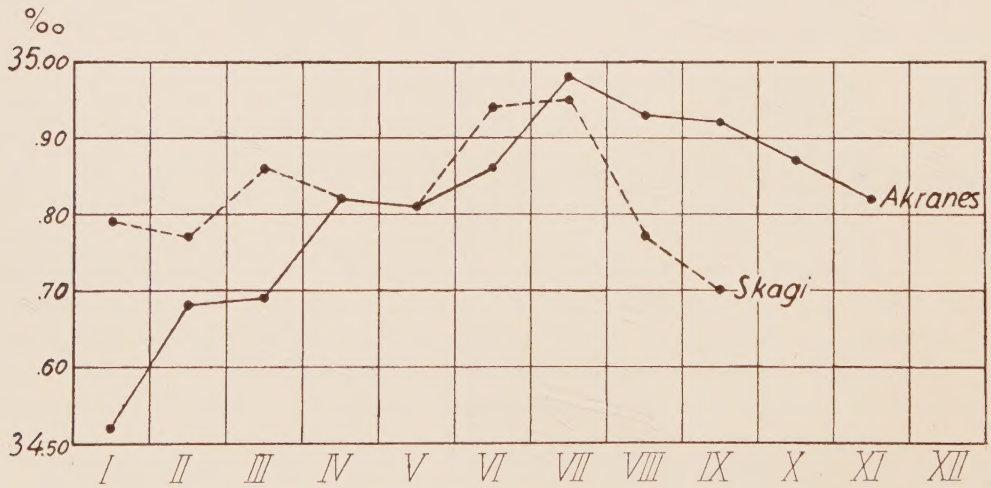

Fig. 4. Variation of mean bottom salinities at Skagi Station and Akranes Station during the year.

2. The bottom conditions.

The character of the deposits brought up by the grab has, as a rule, been noted. On the basis of these notes, and the notes on the sea chart, the present chart (fig. 5) of the bottom conditions has been drawn. From the southern and the middle part of the bay the material is so comprehensive that the results should be fairly reliable. This is hardly so in the northern

part, from where we have much more scanty material. This is, however, to some degree outweighed by the uniform conditions in this part of the bay.

According to THORODDSEN (1902, 1905—06, 1908) Faxa Bay is of tectonic origin, what was formerly dry land being now sunk below the level of the sea. The centre of this subsidence

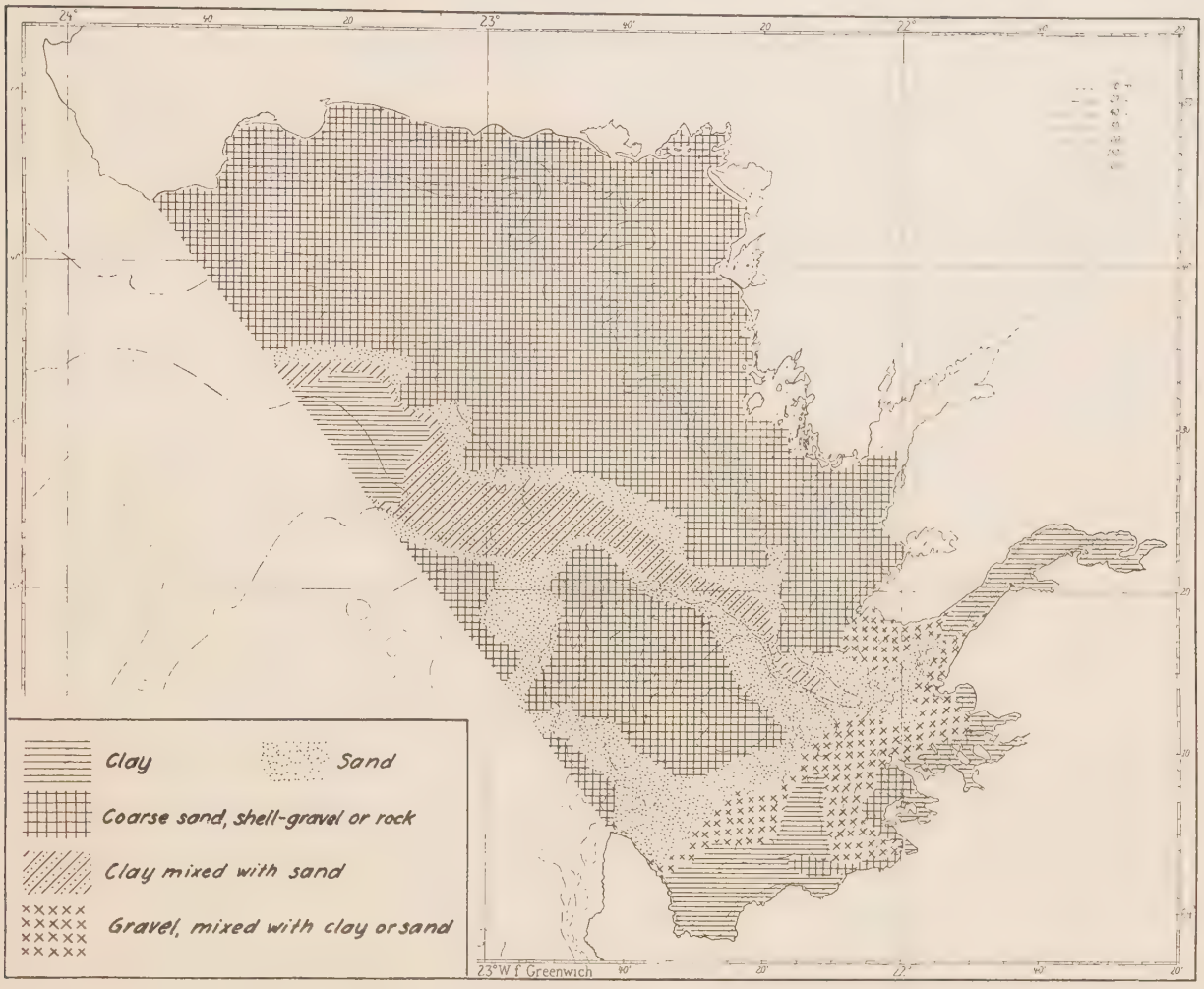

Fig. 5. The nature of the bottom of Faxa Bay,

lies in the northern part of the bay, the Jökuldjúp. This deep cuts in from the ocean in an easterly direction, the outermost part with depths about 200 m., which gradually diminish to about 125 m. The bottom deposit is black ooze. After washing out the sample, the remainder in the sieve was made up of a mixture of Ditrupa-tubes and black gravel, which had a striking resemblance to volcanic ash. Dr. A. NOE-NYGAARD has been kind enough to examine this material for me and according to him this remainder is made up of the following elements.

1. Porous basaltic lapilli (the main part).
2. Liparitic lapilli.
3. Basaltic gravel, slightly rolled.
4. Tufacious particles in small grey pebbles.

It is evident that this material is derived from various sources; the porous lapilli from a volcanic eruption on land; the basaltic gravel has probably been washed down by the strong currents; and perhaps the tufacious particles are erosion material from the Hraun region.

The northern slope of the Jökuldjúp is very steep as is seen by the isobaths. The transition from ooze over sand to gravel or bare rock is therefore very sudden. There is only a small zone that lies, here in the northern part, inside the 50 m. line. This zone becomes broader as we get farther eastward and southward along the coast. But all this shallow northern and eastern part lies open to the ocean, and is of ill repute on account of the heavy surf, especially in SW. and W. gales. The currents here are also rather strong. Because of this strong water movement all the fine erosion material from the coast, or that brought down by the rivers, is deposited nearest to the coast inside the skerries, or washed down into the deeper tracts, while the bottom of this shallow coastbelt, at some distance from the coast, is bare rock with patches of shell fragments or coarse erosion material.

"Þór's" cruise in the winter of 1938 showed that a bottom of similar character also prevails south of the Jökuldjúp. On the whole stretch from Garðskagi NW. to the 150 m. line, deposits were gained only at St. 7 and St. 11, in both cases coarse shell fragments, elsewhere the grab had struck the bare rock.

There is a more gradual transition from the ooze to the sand on the eastern side of the deep. Here a considerable area is covered with sand mixed with clay. On the chart it is shown to extend southwards into the deep channel off Akranes, east of the Hraun region. This is, however, somewhat uncertain, because of the scarcity of samples from this part of the bay.

The southern part of Faxa Bay, with exception of the channel just mentioned, which sends an arm between the Hraun region and the south coast of the bay, lies entirely inside the 50 m. limit. On the north side of this arm, which has depths over 40 m., lies the Hraun region. This region actually divides the bay into the more open northern part, and the sheltered southern part. The Hraun region is very shallow; a large area, Syðra Hraun, lies entirely inside the 20 m. line, and similar depths are also frequently noted on Vestra Hraun. On account of this shallowness these areas act as a breakwater, causing the sheltered conditions in the southernmost part of the bay. In gales the bottom material of the Hraun region is stirred up, and the fine particles are washed down the slopes. The deposits left are so coarse, that the sieve could not be used, as almost nothing went through it. On the slopes the deposits are finer shell sand, mixed, especially on the eastern side, with basaltic sand washed down by the rivers.

Clay bottom, mixed with much organic material, is found only in the fjords and the southernmost part of the bay. In between this kind of bottom and the Hraun region lies a relatively extensive transition area covered with sand mixed with clay, or gravel mixed with clay. Especially off the promontories the last named conditions prevail.

3. Conclusions.

Natural conditions divide Faxa Bay roughly into three parts:

1. The deep middle part of the bay with muddy or mixed bottom, always covered with Atlantic water.
2. The shallow northern and eastern coastbelt and the Hraun region. The bottom rocky with gravelly or sandy patches; usually covered with coastal water.
3. The sheltered southernmost part of the bay, with finer sand, clay or mixed bottom, and coastal water.

III. The Benthonic Animal Communities of Faxa Bay.

A. Communities of the shallower and deeper clay bottom.

1. The Macoma calcarea community.

(Table I at the end and Tables 2, 3, 4, 5, 6 in the text. Depth: about 6—50 m.)

This community has been previously mentioned from Faxa Bay by Spärck (1929, p. 12), and in Table VII in his paper, 8 stations are recorded, situated in Hafnarfjörður, Kollafjörður

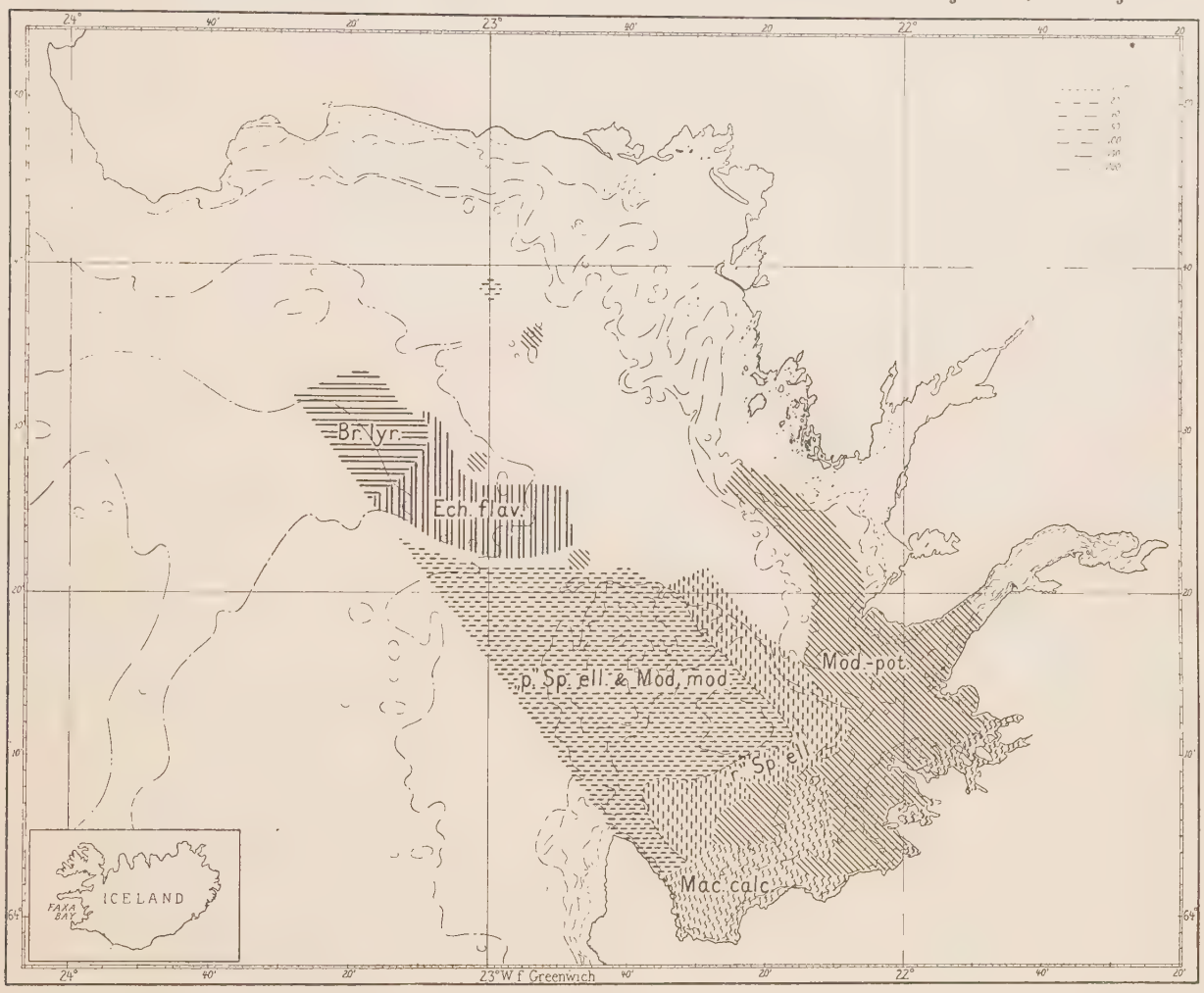

Fig. 6. The distribution of the benthonic animal communities of Faxa Bay. Mac. calc. = *Macoma calcarea* community; Mod-pot. = *Modiola-Potamilla* epifauna; "r" Sp. ell. = "rich" *Spisula elliptica* community; "p" Sp. ell. & Mod. mod. = "poor" *Spisula elliptica* community and *Modiola* epifauna; Ech. flav. = *Echinocardium flavescens* community; Br. lyr. = *Brissopsis lyrifera* community.

and the southernmost part of the bay near the coast. It was found that the community extended in the fjords up to 6 m. The samples from this community, recorded in Table I at the end of the present paper, are all from the deeper parts. Off Stakksfjörður, the outer boundary lies at about 40 m., but it extends further eastwards than shown on Spärcks chart (Spärck 1929, p. 11), following the channel down to at least 48 m. (see fig. 6). Further *Macoma calcarea* is recorded as being abundant from the Sound east of Viðey outside Reykjavik by Hörring (1902, p. 189).

This community is primarily characterized by *Macoma calcarea* (fig. 9), which occurs in all the samples and makes 21 % of the total average weight. Constant, though of little quantitative importance, is *Syndosmya nitida* (fig. 17). In the shallower parts *Astarte montagui* is abundant. Of other Lamellibranchs, *Cardium echinatum* and *C. ciliatum* are worth mentioning,

Table 2.

Samples from the transitional zone between the *Macoma calcarea* community and the *Modiola-Potamilla* epifauna.

Station	3134		3136		3179	
Position	64°04′ N.— 22°17′ W.		64°03′2″ N.— 22°23′5″ W.		64°15′5″ N.— 22°13′ W.	
Date	28-7-27		28-7-27		2-8-27	
Depth	42 m.		40 m.		61 m.	
Area	1 × 0.2 m.²		1 × 0.2 m.²		1 × 0.2 m.²	
	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.
Leda pernula	..	..	1	0.10	..	..
Cyprina islandica juv.	..	..	1	0.10	..	..
Macoma calcarea	..	..	1	2.70	1	1.80
Chiton sp.	..	..	2	0.20	..	..
Chætoderma nitidulum	..	..	1	0.10	..	..
Lunatia pallida	..	..	..	..	1	0.10
Buccinum sp.	1	0.70	..	..	..	..
Gattyana cirrosa	1	0.20	1	0.10	..	..
Nephthys ciliata	1	0.15	..	..	2	0.50
— *paradoxa*	..	..	..	..	1	1.50
Goniada maculata	1	0.20	..	..	..	..
Lumbriconereis fragilis	1	0.20	..	..	..	..
Clymene prætermissa	1	0.15	..	..	2	0.15
Pectinaria granulata	1	0.20	..	..	..	..
Amphicteis gunneri	1	0.15	..	..	..	..
Amphitrite cirrata	1	1.10	2	0.25	..	..
Terebellides strömi	..	..	1	0.10	..	..
Potamilla reniformis	..	..	6	0.50	..	..
Polych. indet.	..	..	2	0.15	..	..
Phascolion strombi	1	0.20	..	..	..	..
Nemertini	..	..	1	0.20	..	..
Echinocardium flavescens juv.	..	..	1	0.10	..	..
Amphipoda	..	..	3	0.10	..	..
Total number and alkohol weight...	10	3.05	23	4.70	7	4.30

also occurring in the central part of the area of the community. In the channel, *Cyprina islandica* becomes abundant (fig. 13) and contributes greatly to the high average weight of the community, but further investigation is needed in order to decide if we have here the development of a distinct zone.

Of the communities of the bay, the *Macoma*-community has the greatest number of species, up to 39 in a single sample. Particularly numerous are the sedentary Polychæts, both as regards species and individuals, especially *Terebellides strömi*, *Sternaspis scutata* (fig. 10), *Maldane*

sarsi, Clymene prætermissa, Rhodine gracilior and *Laonice cirrata*. Of the errant Polychæts, *Nephthys ciliata* (fig. 18) and *Lumbriconereis fragilis* are the most significant.

Very little quantitative importance is attached to the Echinoderms, as is also the case with other shallow water communities off Iceland. *Echinocardium flavescens* (fig. 14) and *Amphiura filiformis* are, however, of common occurrence, *Echinocardium flavescens* especially in the outer parts of the community along with *Cyprina islandica*.

Other animal groups are also of little quantitative importance, but *Dentalium entalis* and *Chætoderma nitidulum* are of relatively constant occurrence.

Table 3.

Sample from the transitional zone (St. 6129, 64°05′ N.—22°33′5″ W.) between the *Macoma calcarea* community and the *Spisula elliptica* community.

Name of species	Number	Weight in g.	Name of species	Number	Weight in g.
Nucula tenuis	1	0,05	*Goniada maculata*	1	0.05
Astarte borealis juv.	1	1.00	*Scoloplos armiger*	2	0.05
— *montagui*	7	4.00	*Laonice cirrata*	4	0.60
Thyasira flexuosa	6	0.30	*Spio filicornis*	1	0.05
Cardium echinatum juv.	1	0.20	*Brada villosa*	1	0.05
Cyprina islandica juv.	2	0.10	*Ammotrypane aulogaster*	1	0.05
Macoma calcarea juv.	11	0.60	*Pectinaria koreni*	1	0.05
Syndosmya prismatica juv.	18	0.25	*Ampharete grubei*	2	0.05
— *nitida*	1	0.05	*Nemertini*	2	0.20
Spisula elliptica juv.	1	0.05	*Amphiura filiformis*	1	0.10
Mya truncata juv.	6	0.05	*Ophiura albida*	5	0.10
Thracia truncata juv.	1	0.05	— *affinis*	2	0.05
Dentalium entalis	1	0.10	*Actinia*	7	0.15
Cylichna sp.	2	0.05	*Protomedeia fasciata*	4	0.05
Gattyana cirrosa	1	0.05	*Crust. indet.*	2	0.10
Eteone flava	1	0.05	Total...	97	8.70

The *Macoma calcarea* community is undoubtedly the richest community of the bay, the total average number being 116.8 individuals pr. 0.2 sq.m. and the total average weight 189.9 g. pr. 0.2 sq.m. Occasionally the *Spisula elliptica* community may show similar weights, but in numbers both of species and individuals it is always poorer.

From the transitional zone between the *Macoma* community and the *Modiola* epifauna are the three stations given in table 2 in the text. It appears from this table that most of the characteristic species of the *Macoma* community have disappeared, and there is a great decrease in the number of species, contrary to what is generally the case in such transition zones.

I will further draw attention to a sample from the transitional zone between the *Macoma* community and the *Spisula* community, which is recorded in table 3 of the text. The transitional character of the sample is evident from the great numbers of *Macoma calcarea* and *Syndosmya prismatica* (fig. 17), of which the latter is characteristic of the *Spisula elliptica* community. In spite of the great number of individuals the weight is very low, being far less than that found in the *Macoma* community or in the *Spisula* community proper. The same feature of the transition zone between two communities has previously been described from East Greenland by Thorson (1934). It will be noted that the Lamellibranchs found here are almost exclusively juvenile.

This is very interesting from the point of view of fishery biology, as it is known that these are very valuable as fish food.

The geographical distribution of this community has been discussed at length by Spärck (1935, 1936 b, 1937). It has been found in all the fjords investigated at Iceland, on all coasts except the south (Spärck 1937). Abundance of the dead remains of *Macoma calcarea, Astarte borealis, Astarte montagui* and several other species that are common in this community have, however, been found by Johansen (1902, p. 35) at 56 m. depth close to the steep coast of the Vestmanna Isles off the south coast, so that the reason why the living animals have not yet been discovered here might be that there are no samples available from the quite shallow water.

The *Macoma calcarea* community is the characteristic shallow water community of the arctic, but furthermore has a fairly wide distribution in the fjords of boreal seas. It has been found in the fjords of Scandinavia (Petersen 1915, Soot-Ryen 1924, Broch 1927), the Faroes (Spärck 1929), the Baltic (Petersen 1913, Thulin 1922, Hagmeier 1930 a) and as stated above, at Iceland. (For further details see Spärck 1935, 1936 b).

The territorial trawl station covers, as will be seen by comparing fig. 1 with fig. 6, three fauna complexes: the *Macoma calcarea* community, the *Modiola* epifauna and the *Spisula elliptica* community. From this station analyses of stomach contents of the Haddock are available from 1926, examined with regard to different age groups. The stomachs were examined singly.

The data are set out in table 4 of the text, where the percentage frequencies for the various animal groups are calculated. Two different samples of the II-group are included. As to

Table 4.

Percentage frequencies of the various animal groups in the stomachs of the Haddock at Station 2640 (Territorial) 21-6-1926.

	Polychæta	Crustacea	Mollusca	Pisces	Empty stomachs	Number examined
I-gr. (15—22 cm.)	**74.0**	10.3	12.1	10.3	17.3	57
II-gr. (24—36 cm.)	7.7	5.8	1.9	**38.5**	46.1	52
« «	2.0	**42.0**	6.0	**16.0**	34.0	50
III-gr. (36—45 cm.)	2.1	10.3	4.2	14.1	**70.0**	47

the I-group the food consists mainly of *Polychæts, Terebellids* and *Maldanids,* so far as identifiable. For the II- and III-groups the case is different. Here *Ammodytes* is of predominating importance. In one of the II-gr. samples a considerable number of stomachs were filled with the young of *Hyas* sp. Most of the stomachs of the III-gr. Haddock were empty.

As to the Plaice, Polychæts are undoubtedly a very important item of the food, which is shown very clearly by analyses of representative samples of stomachs of the Plaice given in table 5 of the text. Here the errant Polychæts predominate, especially *Nephtys* sp. and *Lumbriconereis fragilis.* In other samples, not recorded here, Molluscs are the most common components of the food of the Plaice in this area. Of these *Cyprina islandica* juv. and *Macoma calcarea* juv. are recorded as abundant, but besides these, *Syndosmya* sp., *Spisula elliptica* and *Cardium ciliatum* juv. are fairly numerous. Some stomachs are said to contain *Pelonaja corrugata,* but this animal has not been found in the bottom samples.

Analyses of the stomach contents of the Haddock from the same station is given in

Table 5.

Analyses of stomach contents of representative samples of Plaice from different hauls at Station 3128 (Territorial) 20-7-1927.

	1. sample		2. sample		3. sample		4. sample		5. sample		Average vol-% for animal groups
Number examined	20 spm. > 30 cm.		15 spm. < 30 cm.		10 spm. > 30 cm.		40 spm.		40 spm.		
Part of the area							northern		southern		
	Number	vol-%	Number	vol-%	Number	vol-%	Number	vol-%	Number	vol-%	
Nephthys sp.	10	15	15	25	10	35	7	50	6	85	..
Lumbriconereis fragilis	8	10	10	15	—	20	1	5	..	..	..
Goniada maculata	..	..	..	..	..	..	1	5	..	..	..
Sternaspis scutata	..	..	..	..	—	25	..	..	..	..	..
Terebellidae	2	10	..	..	..	..	3	25	..	..	..
Other *Polychæts*	10	15	—	20	..	..	—	10	..	..	..
											74.00
Macoma calcarea	5	15	..	..	..	..	..	..	..	..	..
Syndosmya sp.	..	..	5	10	..	..	5	5	..	..	..
Chiton sp.	2	5	..	..	..	..	..	..	..	..	..
											7.00
Gephyrea	..	..	3	10	..	..	..	..	..	..	..
Nemertini	1	10	5	15	3	10	..	..	..	..	..
Gammaridae	2	5	2	5	3	5	..	..	1	5	..
Psolus phantapus	5	15	..	..	1	5	..	..	1	10	..
											19.00
											100.00

table 6, p. 16, the material being divided into two size groups: < 30 cm. (roughly corresponding to the I-gr.) and > 30 cm. (II-gr. and older). As previously stated the area, on which the trawlings are made, covers several fauna complexes. The southernmost part lies in the *Macoma* community, while the northern part lies in the *Spisula* community. It might therefore be expected that the food of the Haddock would differ in proportion as the material was derived from the southern or the northern part. This is found to be the case. In the southern part the Polychæts are evidently of greater importance than in the northern part. Contrary to the analysis of the Haddock stomachs, recorded above, it is specially the errant Polychæts that predominate, and this is the general rule. The conditions in 1926 indicate that there has probably been a certain lack of suitable food at that time. In the northern part it is *Ammodytes* that constitute a considerable part of the food, especially for the older Haddock, while the Molluscs of the *Spisula elliptica* community, *Syndosmya prismatica*, *Spisula elliptica* and *Cyprina islandica*, are of greater importance for the younger Haddock.

These analyses of the stomach contents lead to the conclusion that the *Macoma calcarea* community is of great importance as a food producer for the bottom fishes, and specially valuable as nursing ground, because of its great abundance of Polychæts and juvenile Molluscs. As we have seen these constitute a considerable part of the food of the younger age-groups, both of the Plaice and of the Haddock.

The area of this high productivity lies mostly inside the territorial limit, which contributes to a reasonable explanation of the results of the trawling experiments at this station,

Table 6.

Analysis of stomach contents of representative samples of Haddock from different hauls at Station 3128 (Territorial) 20-7-1927.

Size	< 30 cm.						> 30 cm.					
Parth of the area	southern			northern			southern			northern		
Number examined	15			15			25			10		
	Number	Vol-%	Total vol-%	Number	Vol-%	Total vol-%	Number	Vol-%	Total vol-%	Number	Vol-%	Total vol-%
Nephthys sp.	3	20		1	5		8	10		..	..	..
Lumbriconereis fragilis	1	5		..	..		2	2		..	..	..
Goniada maculata	..	..		1	5		..	..		..	..	..
Terebellidae	1	10	**45**	..	..	25	..	..	**42**	..	..	..
Other *Polychæts*	—	5		—	10		16	12		..	..	..
Gephyrea	..	..		..	..		2	13		..	..	..
Nemertini	1	5		1	5		3	5		..	..	..
Pandalus sp.	..	..		3	15		..	..		..	..	
Eupagurus sp.	..	..		..	..		1	3		2	15	
Hyas coarctatus	..	..	**35**	..	..	20	4	9	17	1	5	25
Portunus sp.	1	5		..	..		..	..		1	5	
Gammaridae	41	30		1	5		2	5		..	..	
Macoma calcarea	..	..	..	..	..		—	7		..	..	
Cardium sp.	..	..	..	1	10		2	7		..	..	
Cyprina islandica juv.	..	..	..	..	..		..	..		1	10	
Syndosmya prismatica	..	..	..	**25**	**20**	**30**	..	..	19	5	5	15
Neptunea sp.	..	..	..	..	..		1	4		..	..	
Other *Gastropods*	..	..	..	..	..		3	1		..	..	
Psolus phantapus	..	..	..	..	..	..	1	4		..	..	..
Ophiura sp.	..	..	..	..	..	..	1	1	5	..	..	..
Ammodytes sp.	..	..	..	**5**	**20**		6	10	10	13	50	**50**
Pleuronectes sp.	..	..	..	1	5	25	..	..	..	..	..	..
Indet.	–	20	20	..	..	..	—	7	7	—	10	10

which show that "On an average, 156 plaice were caught per haul inside, against only 4.3 outside; and for the haddock, the figures were about 200 specimens inside against 10 outside". (Schmidt: Administrative Report for 1925, p. 22).

2. The Brissopsis lyrifera community.

(Table II, Depth: about 125 m.—? m.)

From the deeper clay or ooze in the Jökuldjúp, the deepest part of the bay, there were previously only a couple of samples available. These seemed to indicate that here was developed a community related to the deeper clay community of Hvalfjörður, which Spärck named the *Axinus flexuosus* community (1929), and later the *Yoldia hyperborea* community (1937). We have now at our disposal samples from 9 localities in this area, which are set out in Table II

at the end. It will be seen by comparing this table with Table VIII in SPÄRCKS paper (1929, p. 26), that the relation supposed to exist between these two areas does not, in fact, exist.

As regard weight, *Brissopsis lyrifera* (fig. 19) is the dominant form; almost $^2/_3$ of the total average weight being due to this species. Its occurrence is, on the other hand, sporadic, as it was only found in 4 samples of the 9 taken. In spite of this, *Brissopsis lyrifera* seems to be a suitable form with which to characterize the community in question, as it plays a quantitatively important part, and has been found nowhere else in the bay. It has also been recorded as dominant among the invertebrates caught in the trawl in this area, by SÆMUNDSSON (1929, p. 53).

Both with regard to number of species and individuals, the Polychæts are the most numerous in this community. Particularly abundant is *Melinna cristata*, making 6 % of the total average weight, but besides this, *Sternaspis scutata* (fig. 10), *Clymene prætermissa*, *Maldane sarsi* and *Notomastus latericeus* (fig. 16) are numerous. These Polychæts are all forms which have a wide distribution in the bay; of Polychæts which have a more limited distribution, *Ceratocephale loveni* is especially characteristic (fig. 8).

A single Lamellibranch, *Syndosmya nitida* (fig. 17), is pretty constant, but of very little quantitative importance. In the shallower parts it seems to be more abundant and was not found at two of the deepest stations.

The Pennatulid *Virgularia mirabilis* is also common.

The weights are very low, the lowest as yet found in any community in Icelandic waters, the average only amounting to 7.50 g. pr. sq.m. and to 2.60 g. pr. sq.m. for the stations where *Brissopsis lyrifera* did not occur.

If we compare this community with deeper clay communities described from other seas, it will be seen that there is a close resemblance with the *Brissopsis sarsi* community of PETERSEN (1915, Profile 1. a) and the *Melinna-tenuis* Association of MOLANDER (1928, p. 12 ff. and table 1, 2), except that the Icelandic community is in every respect much poorer. Particularly the Lamellibranchs are fewer and of less quantitative importance than is the case in more southern seas.

Nothing can be said with certainty about the distribution of this community off Iceland outside Faxa Bay. *Brissopsis lyrifera* is, on the other hand, recorded by MORTENSEN (1907, p. 156) from deep water off the south and west coast („Ingolf" St. 6, 8 and 85), and by SCHMIDT (1904, p. 21, St. 173) so that there is reason to suppose that this community follows the *Amphiura filiformis* community of the south coast and goes down to at least 350 m. (fig. 19).

It seems to be a general rule that in the deeper clay of the more open Icelandic fjords, there is developed a community where the Polychæts are of outstanding importance. Such a community SPÄRCK has described from the northwest and north coast of Iceland (the *Maldane sarsi* community, SPÄRCK 1937). The *Brissopsis lyrifera* community seems to be a more southern pendant to this, being the most northern arm of the *Brissopsis* community of boreal seas.

On Petersens hypothetical chart of the distribution of the bottom animal communities (1914), it is shown that the *Brissopsis* community has a wide distribution in deep water off the south and southwest coast of Iceland. The data, given above, confirm, so far as I can see, PETERSEN's supposition. SPÄRCK has recently (1935, 1936 b) proposed to comprise the boreal soft bottom communities of medium depths in an *Amphiura* community, and as a type animal of this community he mentions *Brissopsis lyrifera*. The investigations in Icelandic waters do not justify this, but tend to confirm PETERSEN's original views on this matter which will be further discussed below. In the Faxa Bay the *Brissopsis lyrifera* community is restricted to the deeper

clay or ooze bottom (from about 125 m.), and I suppose, as already stated, that it will also be found off the south coast on this kind of bottom. The *Amphiura filiformis* community, described by Spärck from the south coast (1937, Table VIII), is, on the other hand, found on mixed bottom in shallower water (ca. 90—120 m.). From these depths and this kind of bottom we have no records of *Brissopsis lyrifera* from Iceland.

Stephen (1933, 1934) maintains that the area of the North Sea, where Petersen supposed the *Brissopsis* community to occur, was inhabited by a different fauna complex, which he calls the "*Thyasira* + *Foraminifera* zone". So long as there are no quantitative fauna lists from this area, it is difficult to ascertain the relation between the *Brissopsis* communities of the Skagerrak and Iceland, and this zone, or to what degree this new classification is justified.

Investigation of the food of the cod has been carried out on material from the Jökuldjúp. It was ascertained that it mainly fed on *Nephrops norvegicus*. The same is recorded from deep water off the south coast (Schmidt 1904, p. 22, Station 163). Great catches of *Nephrops norvegicus* are also made by commercial trawlers in the areas mentioned. This animal is only rarely caught in the grab, but might be added to the characteristic benthonic fauna of the deeper clay.

B. The animal communities of the gravel, the sand and the mixed bottom.

Unlike the uniform bottom conditions met with in the clay areas just discussed, the broken "landscape" out in the bay causes great variations in the bottom conditions. Even within small areas, we encounter now one, then another kind of deposit. Often the bottom is so hard, especially where pure sand prevails, that the grab, in spite of its weight, does not dig deeply enough to get a representative sample.

3. The Spisula elliptica community.

(Tables III, IV. Tables 7, 8 in the text. Depth: about 20—70 m.)

a. The fauna of the gravel and coarse sand.
(The "poor" *Spisula elliptica* community).

As mentioned above, the bottom over a large part of the bay, the Hraun region, the shallower northern and eastern part and south of the Jökuldjúp, is bare rock with sandy or gravelly patches. This is clearly illustrated by two samples taken at Station 6157, set out in table 7 in the text. The first time the grab brought up some epifauna of the rock, the second time it was half filled with shell fragments, mainly of *Modiola modiolus*. While the epifauna is represented in this sample by *Modiola modiolus, Ophiopholis aculeata* and *Eupagurus* sp., the fauna of the gravel patch is represented by *Spisula elliptica, Psammobia tellinella* and *Ammodytes* sp. Otherwise the poor population of the gravel and coarse sand is set out in table III.

Apart from *Ammodytes* sp., which, strictly speaking, does not belong to the bottom fauna, seeking hiding place in the sand, while it otherwise is pelagic, the fauna is so poor that this area must be marked as the most sterile in the whole bay. Even *Spisula elliptica* (fig. 11), which might be expected as type animal here, is almost lacking. There are, however, signs that indicate that *Spisula elliptica* may temporarily thrive in the gravel patches. Thus 135 *Spisula* were found in a single sample at Station 2634, situated in the middle of Syðra Hraun in 1926. Of Lamellibranchs, only *Psammobia tellinella* (fig. 12) is relatively more common here than in other

parts of the bay. *Glycera capitata*, *Scoloplos armiger* and *Notomastus latericeus* (fig. 16), all forms of almost ubiquitous occurrence, are frequently met with.

This zone evidently corresponds to the *Mactra elliptica* community which Spärck has described from deeper water off the Faroes (Spärck 1929, p. 9). However, several more species are found off the Faroes than in Faxa Bay, especially of the Lamellibranchs. Spärck considers this fauna complex to be identical with the *Venus fasciata* community described from English waters (Ford 1923, Smith 1932), which seems to be very reasonable.

Table 7.

Two samples from Station 6157 (Syðra Hraun, 64°13′7″ N.—22°26′ W.) showing the mixture of the *Spisula elliptica* community and the *Modiola epifauna* in the Hraun region.

Name of species	Number	Weight in g.
Modiola modiolus	6	109.00
Spisula elliptica	3	1.00
Psammobia tellinella	1	0.90
Pomatoceros triqueter	3	0.10
Ophiopholis aculeata	1	0.70
Eupagurus sp.	1	0.40
Ammodytes sp.	5	14.40

In spite of this poverty of the true bottom fauna, the area in question is of great importance from the point of view of fishery biology, on account of the enormous numbers of *Ammodytes* sp., seeking hiding place in the gravel and sand. Preliminary analyses of stomach contents of the chief food fishes of the bay, indicate, that *Ammodytes* is the main item of their food in this area, as will be shown below.

b. The fauna of the sand.
(The "rich" *Spisula elliptica* community).

From the sandy areas bordering the Hraun region, especially on the southern and eastern side, are the stations comprised in table IV. As will be seen, the fauna inhabiting these areas is much richer than the preceding one. The Lamellibranchs are of dominating importance, making about 90 % of the total average weight. None of these, however, are present in all the samples; but *Spisula elliptica* (fig. 11) is the most constant, occurring in 9 localities out of 14. Neither as to weight nor number is it particularly outstanding, the average number pr. 0.2 m.² being 1.6, and the average weight 0.64 g. Further *Syndosmya prismatica* (fig. 17) is in places numerous, but of less quantitative importance. Some stations show great weights, up to 527.5 g. pr. 0.2 m.². These are due to the presence of *Cyprina islandica* (fig. 13), which is of common occurrence here.

Other animal groups are only of subordinate importance. Of Polychæts, *Nephthys caeca* (fig. 18) is pretty constant, and in some places *Owenia fusiformis* appears to be numerous. This can also be said of sandencrusted Ascidians, which are common mainly in the western part of the area.

In comparison with the shallower clay bottom, the sand fauna, as described here, is relatively poor. If we compare the average weight for the *Macoma* community amounting to 116.8 g. pr. 0.2 m.², with the sand community, where the average amounts to 52.7 g. pr. 0.2 m.²,

this is clearly seen. There is, however, reason to suppose that this estimate is not of general importance on account of the collossal variations which are met with in this area, as will be shown.

Spärck regards the area, here discussed under two heads, as inhabited by the *Spisula elliptica* community, described by him in 1929 (pp. 13—14 & table IX). The stations set out in table IX in the said paper, are however, (with exception of Station 2634, previously mentioned, and Station 3192) situated in the sand area proper. A comparison of number and weight of *S. elliptica* at stations from the sand area, where this species occurred in 1926, 1927 and 1939, is shown in table 8.

Table 8.

Number and weight of *Spisula elliptica* obtained in 1926, 1927 and 1939.

Year	Number of samples	Number of *S. ell.* obtained	Total weight of *S. ell.* obtained	Number of *S. ell.* pr. sample	Weight of *S. ell.* pr. sample
1926	9	540	159.3	60	17.7
1927	6	51	40.3	8.5	6.7
1939	10	26	9.4	2.6	0.9

Thus 1926 was extraordinarily rich in *Spisula elliptica*, but as shown by the samples from 1927 and 1939, this abundance is not a general feature of the community; in any case this specially applies to the conditions of the sand area proper. Although there are thus some difficulties in characterizing the quantitative aspect of the community, its extension is pretty well marked by the occurrence of *Spisula elliptica*, with *Syndosmya prismatica* and *Cyprina islandica* as accompanying animals in the sand area proper.

I am inclined to suppose that further studies of the various zones, undoubtedly occurring in this community due to the variable natural conditions in the area, are of great importance with respect to the study of the variations in the fisheries. A study of the variations of these zones, especially with regard to *Spisula elliptica* and *Syndosmya prismatica*, carried out on similar lines as has been already done in other seas (Boysen Jensen 1919, Davis 1923, Hagmeier 1930 b) would undoubtedly yield results valuable to fishery biology.

Unfortunately there are no analyses of the stomach contents of Plaice or Haddock from the extraterritorial station from 1926. It would have been of interest to know what part the great quantities of *Spisula elliptica* found here that year, played as food for Haddock and Plaice. We have, on the other hand, analysis of Haddock from 1927, which is given below:

1st sample 18 spm. examined	2nd sample 20 spm. examined
> 30 cm.: All filed with *Ammodytes*, with exception of one, which had *Syndosmya* < 30 cm.: All filled with *Ammodytes* + 1 Polychæt and 1 Ophiura.	All sizes filled with *Ammodytes* + feet of 5 *Cyprinas*, 1 Holuthurian and some *Syndosmya*.

It appears very clearly from this analysis what a dominant part *Ammodytes* plays in this area as food for bottom fishes. And as the area is also very rich in Molluscs, *Spisula elliptica*, *Syndosmya prismatica* and *Cyprina islandica* etc., this community must be of the utmost importance for the stock of fish.

4. The Echinocardium flavescens community.

(Table V and table 9 in the text. Depth: about 85—130 m.)

Below the *Spisula elliptica* community, at depths about 100 m. on a soft bottom, the *Amphiura filiformis* community was found off the south coast of Iceland by Spärck (1937, p. 11 & table VIII). North of the Hraun region we have corresponding depths and bottom conditions, and it could therefore be supposed that the *Amphiura* community would be developed here. We have now 10 samples to hand from this area, which are set out in table V. As will be seen, *Amphiura filiformis* was nowhere found in such quantities that it could be assigned as type animal.

The most constantly occurring animal is *Echinocardium flavescens* (fig. 14) found in 80 % of the samples and making 15.5 % of the total average weight, but otherwise the Lamellibranchs dominate as to weight, making 55.5 % of the total average, mainly due to the occurrence of *Cyprina islandica* (fig. 13). Of other Molluscs *Syndosmya prismatica* (fig. 17) and *Dentalium entalis* are common.

Both as to number and weight the Molluscs decrease with increasing depth, the opposite being the case with regard to the Polychæts. Of these, especially *Maldane sarsi* with other Maldanids, *Melinna cristata*, *Laphania boecki* and *Anabothrus gracilis*, are numerous, and these are all forms also present in the deeper lying *Brissopsis lyrifera* community.

It will be seen from this description that in Faxa Bay the *Spisula elliptica* community is succeeded by an *Echinocardium* community, or the deeper *Venus* community, (E(v)), of Petersen (Petersen 1913, p. 9 & Appendix pp. 8—10). By comparing the fauna lists, it will be seen that the composition of the Icelandic community is much the same as in more boreal waters, but the weights are lower, the average amounting to 29.6 g. pr. 0.2 m.^{2} in Faxa Bay, while the average of Petersen's stations, calculated pr. 0.2 m.^{2}, is 51.2 g. Of animals which are of common distribution and numerous at most stations in the Kattegat and Faxa Bay may be mentioned: *Syndosmya prismatica*, *Cyprina islandica*, *Nucula tenuis*, *Dentalium entalis*, *Amphiura filiformis* and *Echinocardium flavescens*.

In the *Amphiura filiformis* community of the south coast *Echinocardium flavescens* also predominates as to weight, and most components of the *Echinocardium flavescens* community are generally found in the *Amphiura* community of the south coast. As also these communities inhabit almost the same depths and the same kind of bottom there is every reason to consider them as identical, namely the deep *Venus* community of Petersen. I propose to call this community the *Echinocardium flavescens* community, as *Echinocardium flavescens* seems to be the most constantly recurring component of this community and dominating as to weight.

This community is undoubtedly identical with Stephens' "Offshore zone" in Scottish waters (Stephen 1933, 1934), and has further been described from the fiords of the Faroes (a variation without *Echinocardium flavescens*. Spärck 1929) from the Gullmarfiord on the Swedish coast (Molander 1927), the North Sea and the Channel by various authors (Blegvad 1922, Davis 1923, Hagmeier 1923, Stephen 1923, Ford 1923).

In the area discussed above two samples were taken at Station 6166 at 116 m. depth where the bottom consisted of stones and clay. These samples are recorded in table 9, because they denote a distinct epifauna attached to the *Echinocardium flavescens* community, characterised by *Saxicava arctica, Verruca strømia,* Hydroids and Sponges. It will be noted that the Polychæts are the same as those found in the Echinocardium community.

Table 9.

Two samples taken at Station 6166 (64°28′ N.—23°02′W. — 116 m.), showing the deep epifauna of the *Echinocardium flavescens* community.

Name of species	Number	Weight in g.
Modiola modiolus juv.	1	0.20
Saxicava arctica	3	0.30
Chætoderma nitidulum	1	0.10
Eunice pennata	1	0.20
Syllis cornuta	1	0.05
Praxillella prætermissa	1	0.10
Melinna cristata	1	0.05
Anabothrus gracilis	2	0.15
Ophiopholis aculeata	1	0.60
Ophiura robusta	1	0.05
Verruca strömia	ca. 20	1.00
Galathea nexa	1	0.10
Stylasteridae	fragm.	0.30
Sponges	fragm.	0.50

C. The epifauna.

5. The Mytilus edulis epifauna.

Mytilus edulis occurs abundantly at various places in shallow water (0—5 m.) especially along the south coast of the bay, in Hvalfjörður, in Borgarfjörður and Hítárós. There are as yet no quantitative samples at hand from this epifauna in Faxa Bay.

6. The Modiola modiolus epifauna.

a. The *Modiola-Potamilla* epifauna.

(Table VI, and table 10 on p. 24.)

It was stated above that the tidal current sweeps the south coast of the bay. In the shallower areas of the southernmost part of the bay, especially off the promontories, where there is a strong current, we find a mixed bottom of gravel or small pebbles, much mixed with clay or sand (see fig. 5). Stations from this area are set out in table VI.

The bottom fauna is primarily characterised by *Modiola modiolus* (fig. 15), occurring in most of the samples and making 85 % of the total average weight. Besides this, a sedentary Polychæt, *Potamilla reniformis,* is exceedingly numerous, occurring in practically all the samples. This epifauna has a somewhat peculiar appearance as it is not attached to the really hard bottom. The *Modiola* is fastened to small pebbles by the byssus and half burried in the clay,

as may be clearly seen from the marks on the shells. The *Potamilla* is also attached to the pebbles, but besides it covers with its tubes almost every *Modiola* shell, giving this epifauna a very characteristic appearance.

These are the main components of the epifauna, but here is also to be found a richer Crustacean fauna than elsewhere in the bay, *Eupagurus* sp. and *Hyas coarctatus* being especially numerous.

Of other animals of the epifauna *Alcyonium digitatum* is frequently met with, fastened to the *Modiola*. Of Echinoderms *Ophiopholis aculeata* and *Strongylocentrotus droebachiensis* are common.

The clay in which the pebbles are imbedded is inhabited by a rich infauna, which, in many respects, resembles that of the *Macoma* community. The *Modiola-Potamilla* epifauna might therefore be considered as the epifauna of the *Macoma calcarea* community.

Among the Polychæts *Nephthys ciliata* (fig. 18), *Terebellides strömi* and *Melinna cristata* are common components of this infauna. Of Polychæts confined to this area might be mentioned *Lepidonotus squamatus, Syllis cornuta, Pectinaria granulata* and *Polymnia nesidensis.*

Only few Molluscs are peculiar to this area, *Astarte elliptica* is, however, more common here than elsewhere, and several Gastropods, such as *Lepeta coeca, Trochus tumidus* and *Natica clausa* have been found only here.

The extraterritorial trawl station lies in the transitional zone between the *Modiola* epifauna and the *Spisula* community (see fig. 1). Information on the epifauna of these communities is therefore given by the list of invertebrates caught in the trawl at this station. I give here a list of the invertebrates from this station trawled in 1938, with estimates of frequency in brackets:

Sponges (rr)[1]), *Diphasia abietina* (rr), *Hydrallmannia falcata* (rr), Other Hydroids (rr), *Alcyonium* sp. (+), *Aurelia aurita* (rr), *Cyanea capillata* (rr), *Lepidonotus* sp. (rr), *Terebellidae* (rr), *Aphrodite aculeata* (rr), Other Polychæts (rr), *Phascolosoma vulgare* (rr), *Pandalus montagui* (+), *Spirontocaris spinus* (rr), *Sclerocrangon boreas* (rr), *Crangon allmanni* (r), *Eupagurus bernhardus* (r), *Portunus holsatus* (+), *Hyas coarctatus* (r), *Cyprina islandica* (r(+)), Other Lamellibranchs (rr), *Buccinum* sp. (r), Eggs of *Buccinum* sp. (+), Nudibranchs (rr), *Rossia* sp. (rr), *Flustra* sp. (rr), *Alcyonidium* (*gelatinosum*?) (r), *Asterias rubens* (cc), *Henricia sanguinolenta* (rr), *Solaster endeca* (r), *Ophiura albida* (r), *Strongylocentrotus droebachiensis* (r), *Echinocardium flavescens* (rr), *Cucumaria frondosa* (c), *Psolus phantapus* (+), sandencrusted Ascidian (r), Other Ascidians (rr).

The list contributes to our knowledge of the bottom fauna as several species, not easily caught in the grab, are recorded as abundant from the trawl, *Asterias rubens* and *Cucumaria frondosa* being examples.

The territorial station is situated in a similar transitional area (see fig. 1), and it will be seen from the list of invertebrates from the trawl, which is given below, that most of the animals are common to both stations. At the territorial station, however, enormous masses of Sponges (*Geodia mülleri*?) are encountered, which are absent from the other station. I give in the following the list from the territorial station:

Sponges (cc), Hydroids (r), *Alcyonium* sp. (+(c)), *Cyanea capillata* (rr), Annelids (rr), *Pandalus montagui* (+), *Spirontocaris spinus* (rr), *Sclerocrangon boreas* (rr), *Crangon allmanni* (rr), *Eupagurus bernhardus* (rr), *Galathea* (*nexa*?) (rr), *Portunus holsatus* (+), *Hyas coarctatus* (+), *Nymphon* sp. (rr), *Modiola modiolus* (+), *Cyprina islandica* (r), Other Lamellibranchs (rr), *Buccinum* sp. (r), Eggs of *Buccinum* sp. (r), Nudibranchs (*Doris* etc.) (+), Eggs of Nudi-

[1]) The ordinary symbols of frequency used: rr, r, +, c, cc.

branchs (rr), *Alcyonidium* sp. (rr), *Asterias rubens* (cc), *Henricia sanguinolenta* (r), *Solaster endeca* (rr), *Ophiura albida* (rr), *Strongylocentrotus droebach.* (rr), *Echinocardium flavescens* (rr), *Cucumaria frondosa* (cc), *Psolus phantapus* (r), sandencrusted Ascidian (rr), Other Ascidians (rr).

Both as to weight, number of species and individuals the *Modiola-Potamilla* epifauna ranks among the richest communities of the bay, the average weight amounting to 147.4 g. per 0.2 m.² in 1939 and with 99.7 individuals per 0.2 m.² on an average. The rich Crustacean fauna is probably very valuable as fish food as indicated by the analyses made on stomach contents of the Haddock at the extraterritorial trawl station, which are recorded in table 10. As the trawl area also extends to the *Spisula* community it is only natural that *Ammodytes* constitutes a good part of the food of the Haddock in these samples. It is further seen that the Polychæts of the *Modiola* epifauna are of no slight importance, and the same applies to the Gastropods found here.

Table 10.

Stomach contents of the Haddock in vol-$^0/_0$ at Station 4691 (Extraterritorial) 1933.

Hauls	I+II	III	IV	V	VI	VII	VIII	IX	X	XI	Average vol-$^0/_0$
Ammodytes sp.	35	10	5	93	10	70	15	..	40	20	33.0
Lumbriconereis fragilis	..	2	..	..	5	2	..	..	..	..	13.8
Nephthys sp.	..	5	10	..	5	..	..	..	..	20	
Aphrodite aculeata	10	15	..	..	10	15	10	..	..	5	
Other *Polychæts*	..	..	3	..	2	..	..	..	5	..	
Molluscs[1])	3	3	15	..	50	3	22	..	..	45	15.7
Eupagurus sp.	50	15	20	4	5	..	10	..	5	5	35.8
Galathea sp.?	..	30	20	3	5	10	17	..	15	..	
Other *Crustaceans*	2	15	27	..	8	..	26	..	30	..	
Echinoderms	..	5	..	..	..	..	..	..	5	5	1.7
											100.0

The *Modiola* epifauna is a boreal community, of special importance in Icelandic and Faroese waters, but also of fairly great importance in most of the seas in northeastern Europe.

b. The epifauna of the rock.

(Table 11, p. 25).

From the rocky areas of the bay the material is, of course, very scanty, as the Petersen grab works very imperfectly on that kind of bottom, and quantitative information is naturally not to be had from them. As was shown above by the record from station 6157, the grab, however, brings up enough material to give an idea of the components constituting the epifauna, especially where it extends to the gravel or stone patches between the rocks. As the area in question is fairly extensive we are justified in taking into consideration the samples from such gravel patches, given in table 11, as well as the records from the rock itself, which are given in the appendix.

[1]) mainly Gastropods.

Modiola modiolus (fig. 15) and *Potamilla reniformis* are also found here, but not abundantly and they are of smaller size than in the areas mentioned above. Further Ascidians, especially *Synoicum pulmonaria*? and *Amaroucium* sp., are a predominating feature of these areas of gravel or stones. A number of Barnacles, attached to the stones or the *Modiola* shells, were secured.

The records from "Þór's" cruise west of the Hraun region and in the northern part of the bay, show, that hard bottom is here of great extent. Living animals were only obtained at few stations on these sections. Among the animals recorded were *Spisula elliptica* (fig. 11), *Syndosmya prismatica* (fig. 17), *Sthenelais filamentosus*, *Nephthys caeca* (fig. 18), *Ophiura affinis* and *Balanus balanus*. Further we have at our disposal some samples from the northernmost part, but apart from Station 3205 and Station 3203, where respectively *Spisula elliptica* community and *Modiola* epifauna were found, these samples contained only a few Polychæts and Barnacles.

Table 11.

The *Modiola* epifauna of the rock.

Station	Da. 6127		Da. 6147		Da. 6156		Da. 3132	
Date	21-7-39		26-7-39		28-7-39		28-7-39	
Position	64°08′5″ N.— 22°39′ W.		64°08′5″ N.— 22°39′ W.		64°12′2″ N.— 22°23′5″ W.		64°05′ N.— 22°04′ W.	
Depth	40 m.		39 m.		19 m.		20 m.	
Area	1 × 0.2 m.²		2 × 0.2 m.²		1 × 0.2 m.²		1 × 0.2 m.²	
Name of the species	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight n g.
Modiola modiolus	7	6.00	14	68.00	2	2.30	1	12.90
Modiolaria nigra	1	0.10	..	..	..	..	..	..
Cardium fasciatum	1	0.10	..	..	..	..	..	..
Saxicava arctica	2	0.50	..	..	..	..	..	..
Macoma calcarea juv.	..	..	..	..	..	..	1	0.10
Mya truncata juv.	..	..	1	0.10	..	..	..	..
Lunatia montagui	1	0.15	..	..	..	..	..	..
Natica clausa	..	..	..	..	1	0.70	..	..
Lepidonotus squamatus	..	..	..	..	..	..	1	0.15
Syllis cornuta	..	..	..	..	1	0.05	..	..
Nereis sp.	3	0.15	..	..	..	..	..	..
Cirratulus cirratus	..	..	2	0.25	..	..	..	..
Melinna cristata	..	..	2	0.10	..	..	..	..
Pista maculata	..	..	1	0.10	..	..	..	..
Potamilla reniformis	5	0.50	3	0.20	..	..	30	2.25
Pomatoceros triqueter	..	..	1	0.10	..	..	..	..
Phascolion strombi	..	..	..	..	1	0.15	..	..
Ascidia	c	19.60	c	14.00	..	..	..	..
Eupagurus sp.	2	0.20	2	0.20	..	..	..	..
Balanus balanus	1	1.60	c	17.00	1	1.60	..	..
Amphipoda	..	..	..	..	4	0.15	..	..
Bryozoa	—	9.90	..	..	..	..	—	0.10
Sponges	—	0.40	—	0.50	..	..	..	..

Compared with the epifauna of the rock described from the Faroes by Spärck (1929, p. 4), which is characterised by *Alcyonium digitatum*, this epifauna seems to be very poor and of a different character.

In those cases where the grab had marks which indicated that it had struck the rock (e. g. at Station 6124) it had scraped off only a few Barnacles to which various animals were attached. Of these might be mentioned *Pomatoceros triqueter*, which is very frequent here, *Polydora ciliata*, *Verruca strömia*, *Saxicava arctica* and the Ascidian *Diademnum albidum*. The epifauna of the rock is thus probably characterised by Barnacles, which tallies with the result arrived at by American scientists who have investigated corresponding localities, (Shelford's *Strongylocentrotus — Argobuccinum biome*) characterised by relatively hard bottom and much current or wave action (Shelford, Weese etc. 1935).

D. General remarks and conclusions.

The Hraun region marks a boundary in Faxa Bay dividing the bay into the more sheltered southernmost part and the northern part, which is open to the waves of the ocean. Inside the Hraun region three fauna complexes are developed, the arctic or boreo-arctic *Macoma calcarea* community, the boreal *Spisula elliptica* community and the boreal *Modiola modiolus* epifauna, here developed as a distinct variation, the *Modiola-Potamilla* epifauna. In fig. 7 the quantitative aspect of the communities are elucidated, the black spots denoting the total average weight of the community, while the columns above the horizontal line give the average weight of the Lamellibranchs, the Echinoderms and the Polychæts in the various communities of the bay. The columns underneath the horizontal line show the percentage of the same animal groups in the different communities and at the same time give information as to the percentage importance of the dominating species.

It will be seen that the communities occurring inside the Hraun region are characterised by high weights and the predominance of Lamellibranchs, which as a rule constitute more than 80 % of the total average weight. At the same time it will be noted that most of this weight is due to only few species, namely *Macoma calcarea*, *Modiola modiolus*, *Spisula elliptica* and *Cyprina islandica*. The weights encountered in this part of the bay are as high as those found in more southern seas.

Outside the Hraun region we meet the two boreal communities, the *Echinocardium flavescens* community and the *Brissopsis lyrifera* community. Quantitatively, these communities, occurring in deeper water, are very much poorer, both as to weight and number of species than the preceding ones and furthermore show lower weights than is the case in the corresponding communities in more southern seas.

Compared with the communities inside the Hraun region the Echinoderms have a great predominance, making 29 % of the total average weight in the *Echinocardium* community and 66 % in the *Brissopsis* community. In the *Echinocardium* community this weight is due to a number of species occurring here, while in the *Brissopsis* community it is almost exclusively due to one species, while the Polychæts otherwise constitute the main feature of the deeper muddy bottom.

As to the Hraun region itself, the deeper hard bottom area west of it and the shallower northern and eastern part of the bay, the material is less comprehensive because of the difficult working conditions. But the gravel patches have been shown to be inhabited by a "poor"

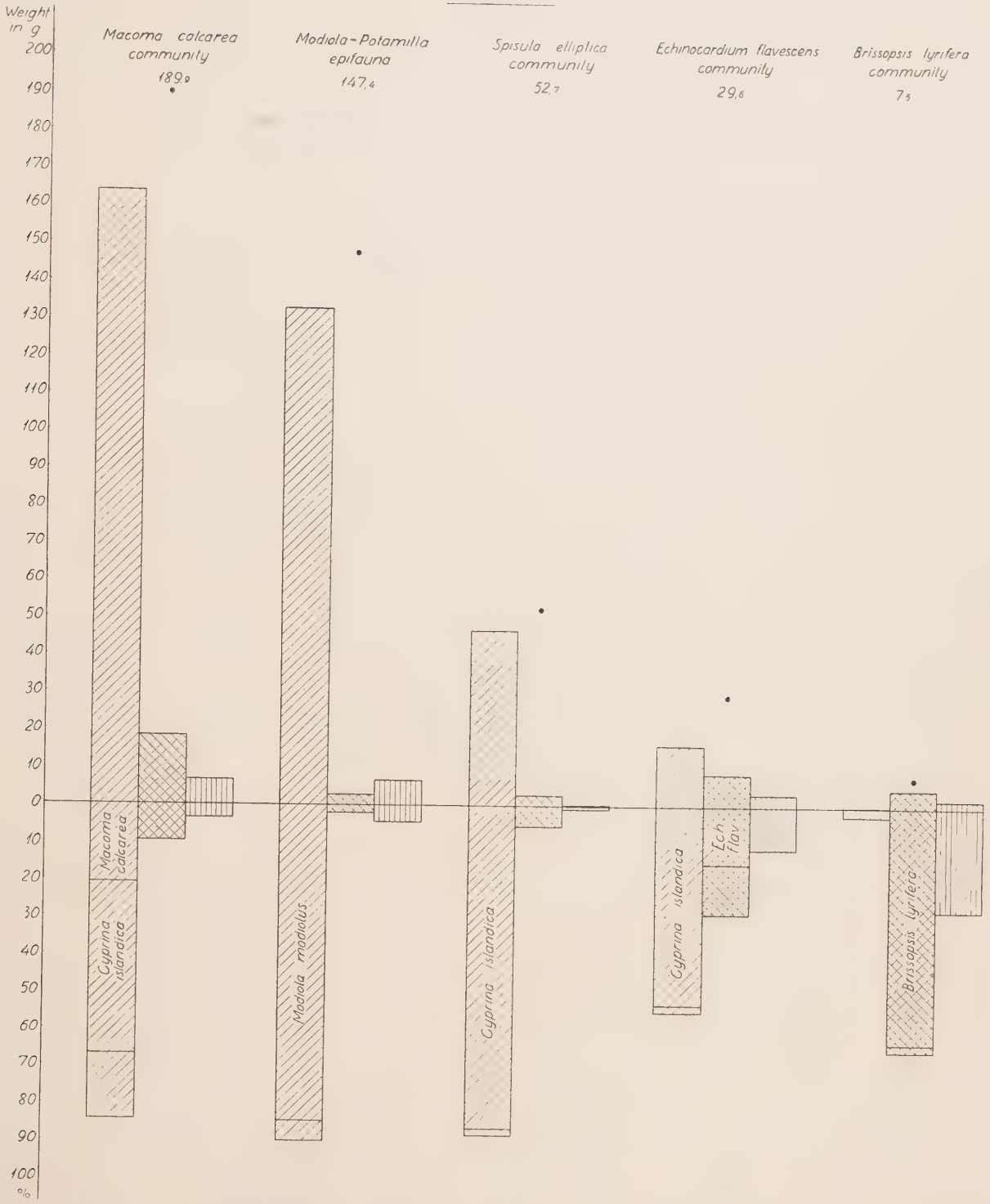

Fig. 7. Graph showing the quantitative composition of the benthonic animal communities of Faxa Bay. Oblique hatching = Lamellibranchs, crossed = Echinoderms, vertical = Polychæts. The black spots denote the total average weights of the communities pr. 0.2 m². The columns above the horizontal line give the average weight of the Lamellibranchs, the Echinoderms and the Polychæts pr. 0.2 m², while the colums below show the percentages of the same animal groups. In the same colums the percentage importance of the most common forms is shown. Ech. flav. = *Echinocardium flavescens*.

Spisula elliptica community similar to that found at corresponding depths and bottom conditions off the Faroes and in English waters, though still fewer species are found in Faxa Bay. Besides this the *Modiola* epifauna has been found on stony bottom in the same area, and it is probable that the rock surfaces are characterised by a Barnacle community.

The above statements lead to the conclusion that inside a line Garðskagi-Akranes lies the area of high productivity in Faxa Bay, while the northern part is of far less quantitative importance.

Analyses of stomach contents of the Haddock and the Plaice have been made in this area of high productivity at the two fixed trawl stations. The data are very fragmentary, it is true, and unfortunately we have only few samples from the years when the trawlings were made, so that a further discussion of the relation between the composition of the benthonic communities and the food of the bottom fishes must be postponed to some future date, when more material is available, but some general features will be touched upon here.

With regard to the *Macoma calcarea* community the abundance of Polychæts is of outstanding importance, especially for the I-group Haddock and the Plaice. At times the juvenile Lamellibranchs are also valuable as fish food, especially *Macoma calcarea.*

From the point of view of fishery biology, the *Spisula elliptica* community, or the area inhabited by it, is of even greater importance, for it is here that the crowds of *Ammodytes* occur. *Syndosmya prismatica* and *Spisula elliptica* are also very important and perhaps the same applies to *Cyprina islandica* juv.

I am inclined to suppose that as to the *Modiola-Potamilla* epifauna it is the relatively great abundance of Crustaceans, together with the numerous errant Polychæts found here that make this epifauna valuable in fishery biological respect.

At present nothing can be said about the value of the deeper communities as fish food producers; but it is reasonable to suppose that the Polychæts might be of some value, especially for the flatfishes. Among the animals found in the area of the *Brissopsis* community, *Nephrops norvegicus* is of importance as fishfood.

Contrary to what is found in more southern seas, the Echinoderms constitute a neglible part of the food of the bottom fishes.

Petersen supposed that on the continental shelf of the Northern Atlantic the following communities would be found (Petersen 1914):

1. The *Macoma* community.
2. The shallow *Venus* community.
3. The deep *Venus* community.
4. The *Brissopsis* community.

As was shown above this is exactly the succession of the communities found in Faxa Bay, and a better confirmation of the hypothesis of Petersen could hardly be expected. The shallow *Macoma baltica* community of more southern seas is, however, replaced by the more northern *Macoma calcarea* community. Further, the deep *Venus* community of Petersen, has in Faxa Bay differentiated into a shallower *Spisula elliptica* community, occupying the area inhabited by the shallow *Venus* community in more southern seas, and the deeper *Echinocardium flavescens* community, corresponding to the deep *Venus* community.

The author considers the *Amphiura filiformis* community described by Spärck from the south coast of Iceland and the Faroes and by various authors from more southern seas as identical

with the last named community, so that there is reason to suppose that the succession of communities found in Faxa Bay is the general rule in the northern parts of boreal seas as regards the continental shelf.

The fact that it was possible, without serious difficulties, to identify the communities found in Faxa Bay with those described by PETERSEN and others who have worked with animal communities in boreal waters, shows that PETERSEN's conception of communities is of great value when considering the broad lines in Zoogeography or the relationship of faunas found at different places. There has not been, therefore, any need to give new names or definitions to the communities found in Faxa Bay. In the authors opinion the attempts that have been made to base the description of the fauna on other principles than those proposed by PETERSEN (DAVIS 1925, STEPHEN 1933, 1934) have not been so successful as to invite one to abandon the PETERSEN idea of communities.

From the point of view of fishery biology this must, however, only be considered as a beginning, as here also only the broad lines of the quantitative aspect of the communities have hitherto been considered. As mentioned under the discussion of the *Spisula elliptica* community, the zones inside such a "unity" are not of equal importance in fishery-biological respect, one yielding great quantities of fishfood, the other much less. I am therefore of the opinion that only a more intensive study of the various zones of the communities, and the variations occurring in these according to season and year, can give us the information we are striving for in fishery biology; the root of the matter is that an investigation of the biology of the most important species must be the foundation of further work in the production biology of the marine bottom fauna.

Criticism has recently been put forward against the accuracy of the PETERSEN valuation method (LINDROTH 1935), and, it must be admitted, this criticism is particularly apt where working conditions have been poor which may be due either to unfavourable bottom conditions or because no laboratory was available near the investigated area, where the material could be fully treated. However, works carried out on animal communities at Greenland, Iceland and the Faroes, where this has been the case, seem to bear out the fact that for identification of the largest natural units (Biotic Formations: SHELFORD 1932) the accuracy achieved has been sufficient. I agree with LINDROTH, however, that it will be necessary in future to arrive at a greater clarity on these matters, and a further investigation of the smaller units of the Biotic Formations will doubtless make this imperative.

With its varying natural conditions Faxa Bay is certainly very interesting as a field of research, lying as it does in the periphery of one of the richest sources of Phytoplankton as yet known, the Irminger Sea. Numerous problems related to the production biology of the sea might be solved here. Is there any relation between the high productivity of the southern part of the bay and a supply of Phytoplankton originating west of Faxa Bay, or is the Faxa Bay autochtonous in this respect? Are the nutrient salts supplied from the upwelling in the Irminger Sea, or are they derived from the deposits brought down by the rivers, which at times make the waters of the bay milky? Is the food of the bottom fauna dependent on the Phytoplankton or the sea-weed growth in the inner part of the bay?

A thorough investigation of all these questions as well as of the importance of the bottom animals as fish food is highly to be recommended. Here a wide field of research lies open to the new marine biological laboratory in Reykjavik, which, being situated near the area in question, will be able to treat the material more fully and make supplementary observations which will add to the value of the investigations.

IV. A Faunistic Review of the various Species of Polychæts, Molluscs, and Echinoderms

found in the bottom samples taken with the Petersen grab in Faxa Bay 1926—1939.

As I stated in the introductory remarks, the investigation of the various species of bottom invertebrates in Faxa Bay has received but little attention and this is why I am able to give some new information on the species of the most important animal groups and their distribution in the bay. Among the Polychæts especially there are many species here recorded from Iceland for the first time. Several of these species are of common occurrence and some of them abundant in the bay. That they have not been recorded before is partly due to the fact that the apparatus previously used was unsuitable for their capture and partly to the scarcity of material from the deeper parts of the bay.

As the character of deposits has been noted at most of the stations remarks will be made on the habitat of the more common forms.

The number of the station where each species has been found is given, and, unless otherwise stated, the stations are those operated by the Danish research vessel "Dana". Further information on these stations may be had in the appendix. Those stations where the same animal community has been found have been classed under the heading of this community. Ma = *Macoma calcarea* community, B = *Brissopsis lyrifera* community, S = *Spisula elliptica* community, E = *Echinocardium flavescens* community. M = *Modiola modiolus* epifauna. Those stations which have been bracketed are recorded only in the appendix.

The distribution of the various species, which is elucidated in some charts of several distributional types, will be further discussed in my concluding remarks at the end of this chapter.

1. POLYCHÆTA.

1. *Aphrodite aculeata* (L.).
   E: 6167.
   This species was only once caught in the grab, but is further recorded both among invertebrates caught in the trawl at the fixed trawl stations and from stomachs of the Haddock. It seems to be relatively rare.
2. *Lepidonotus squamatus* (L.).
   M: 3132, 6142, 6150 B, 6152.
   In the present investigation this species has been found to be confined to the *Modiola* epifauna, but nowhere abundant.
3. *Gattyana cirrosa* (Pallas).
   Ma: 6130, 6149, E: 3200, 6179, M: 6142, Þór 43.
   This species seems to be confined to mixed bottom, and has been found both in shallower and deeper water.
4. *Eunoe nodosa* Sars.
   M: 6150 B.
5. *Harmothoe imbricata* (L.).
   Ma: 6149, M: 6143.
   While this species occurs abundantly, in the tidal zone according to Sæmundsson (1918), it is rarely found offshore in the bay.
6. *Harmothoe longisetis* (Grube).
   Ma: 6130, B: Þór 16, S: 6137.
   New to Iceland.
7. *Polynoe scolopendrina* Sav.
   E: 6167.
   New to Iceland.
8. *Polynoe kinbergi* (Mgrn.).
   Ma: 6149.
   New to Iceland.
9. *Sthenelais filamentosus* (Ditlevsen).
   Ma: 6153, S: 6132, 6137, 6154, E: 3199, 6164, (Þór 23, Þór 25).
   This species was notably found on bottom with sand and was further one of the few species found on hard bottom out in the bay. This species was described as new by Ditlevsen in 1917 from the south coast of Iceland, but since then it has not been recorded till now.
10. *Phyllodoce maculata* (L.).
    B: 6168, M: 6143.
11. *Eteone longa* (Fabr.).
    Ma: 6131.
12. *Eteone flava* (Fabr.).
    Ma: 6129.
13. *Castalia punctata* (O. F. M.).
    M: 6143, 6150 A.
14. *Syllis cornuta* Ratke.
    M: 6142, 6150 A, 6152, 6156, 6166.
    New to Iceland.
    This species has only been found in the area of the *Modiola* epifauna.

15. *Ceratocephale loveni* Mrgn. (fig. 8).
B: 6168, 6169, 6170, 6171, 6180.
New to Iceland.
Only found in the Jökuldjúp; its habitat is ooze bottom.
16. *Nephthys caeca* Fabricius (fig. 18).
Ma: 6130, 6153, S: 6132, 6135, 6137, 6140, 6154, E: 6164, 6165, 6172, (3202, Þór 27).
The most common species of *Nephthys* on sandy bottoms, but also found on mixed bottom in the *Echinocardium flavescens* community.
17. *Nephthys hombergi* Aud. & M-Edw.
S: 3195.
New to Iceland.
18. *Nephthys longosetosa* Ørsted (fig. 18).
S: 6136, 6138.
Like *N. caeca* found on sand bottom.
19. *Nephthys incisa* Malmgren.
B: 6171.
New to Iceland.
20. *Nephthys ciliata* (O. F. M.) (fig. 18).
Ma: 2642, 2675, 3130, 3134, 3135, 3170, 3171, 3179, 3185, 6131, 6149, 6151, B: 6169, 6181, E: 3200, 3201, M: 6141, 6142, 6143, 6150 A, 6152, Þór 40, Þór 43, Þór 44.
One of the most common and abundant Polychæts of the bay. Can be said to occur where the deposits are clay or strongly mixed with clay. Is of very great importance as fishfood.
21. *Nephthys paradoxa* Malm. (fig. 18).
Ma: 3179, 6149, 6153, B: 6171, 6180, Þór 16, E: 6179.
New to Iceland.
This species is still more than the preceding one characteristic of pure clay. Nowhere found abundantly.
22. *Glycera capitata* Ørsted.
S: 2649, 2650, 2651, 2655, 3143, 3205, 6122, 6125, 6126, 6133, 6155, Ma: 3130, E: 6165, 6167, 6173, 6178, M: 6152.
This species has a wide distribution, in the bay, though especially found in sandy bottom. One of the few components of the shell-gravel fauna.
23. *Glycera rouxii* Aud. & M-Edw.
B: 6168, E: 6165, 6167, 6178, 6179.
New to Iceland.
This species occurs in deeper water than the preceding one and in distinction to this found in clay or deposits strongly mixed with clay.
24. *Goniada maculata* Ørsted.
Ma: 3134, 3135, 6129, 6151, 6153, S: 6136, 6175, E: 6164, 6165, 6172, 6173, M: 6142, 6150 A, 6150 B, 6163.
One of the most common Polychæts of the bay inhabiting especially clay or mixed bottom.
25. *Eunice pennata* (O. F. M.).
S: 3205, E: 6167, M: 3182, 6141, 6142, 6163, 6166, Þór 40, (3198, 3206, 3209).
The bottom where this species was found was gravel mixed with clay, sand or stones. Notably confined to the *Modiola* epifauna.
26. *Onuphis conchylega* Sars.
S: 2649, 2650, 2651, 2652, 2655, 2657, 3142, 3143, 3205, E: 6165, 6173, M: 3139, 3184.
Particularly common in 1926 on the sand bottom.
27. *Lumbriconereis fragilis* (O. F. M.).
Ma: 2675, 3134, 3171, 6130, 6131, 6149, 6151, B: 6168, E: 3200, M: 2633, 2675, 3171, 3181, 3182, 3183, 3184, 6141, 6142, 6150 A, 6152, Þór 43.
Next to *Nephthys ciliata* the most frequently recorded Polychæt of the stomach analyses. Its habitat is clay bottom, mainly in shallower water.
28. *Scoloplos armiger* (O. F. M.).
Ma: 2642, 2643, 6129, 6130, 6151, 6153, S: 3195, 6122, 6125, 6132, 6135, 6136, 6137, 6148, 6154, 6155, M: 6150 B, (Þór 34).
This species is almost ubiquitous in the bay occurring on all kinds of bottom. Very common, and in places abundant.
29. *Laonice cirrata* (Sars).
Ma: 6129, 6130, 6149, 6151, 6153, 3135.
New to Iceland.
Although not previously recorded from the bay, this species seems to be common in the *Macoma* community and in some places abundant.
30. *Spiophanes kröyeri* Grube.
Ma: 6151, 6153, S: 6136, 6154, E: 6172, 6178, 6179.
New to Iceland.
Found both on sand and clay bottom.
31. *Spiophanes bombyx.* (Clap.).
S: 6154.
New to Iceland.
32. *Spio filicornis* (O. F. M.).
Ma: 6129, 6131, 6151.
33. *Polydora ciliata* (Johnston).
E: 6178, M: (6124).
34. *Disoma multisetosum.* Örst.
B: 6170, E: 6179.
New to Iceland.
The records of this species are from the soft bottom in the deeper areas of the bay.
35. *Spiochætopterus typicus* Sars.
B: 6180.
New to Iceland.
The only record of this species is from the Jökuldjúp. At other stations in that area the tubes of this species were occasionally met with.
36. *Cirratulus cirratus* (O. F. M.).
Ma: 6131, M: 6147.
37. *Chætozone setosa* Malmgren.
Ma: 6130, 6131, 6149, 6151, 6153, E: 6172, 6179.
Only found on clay bottom or where the deposits were strongly mixed with clay.
38. *Stylarioides plumosa* (O. F. M.).
E: 6167.
39. *Diplocirrus glaucus* Haase.
Ma: 6153, B: 6170, 6180, 6182, Þór 17, E: 3200.
New to Iceland.
Particularly found in the deeper areas of the bay on soft bottom.
40. *Brada villosa* (Ratke).
Ma: 6129, 6130.
41. *Ophelia limacina* (Ratke).
S: 2634, 2649, 2651, 2655.
This species was commonly found on sand bottom in 1926, but there are no records of it either from 1927 or 1939.
42. *Ammotrypane aulogaster* (Ratke).
Ma: 6129.
43. *Notomastus latericeus* Sars (fig. 16).
Ma: 6131, 6151, B: 6168, 6169, 6182, S: 6122, 6125, 6126, 6133, 6155, 6159, 3205, E: 6167, 6173, 6178, 6179, M: 6141, 6142, 6150 A, 6150 B, 6163, (3202, 3208).
One of the most common Polychæts of the bay. It is of ubiquitous occurrence.
44. *Rhodine gracilior* (Tauber).
Ma: 6131, 6149, 6151, 6153, B: 6168, M: 6152, Þór 43, 44.
New to Iceland.
Its habitat is clay bottom in shallower and deeper water.

45. *Clymene gracilis* (Sars).
Ma: 3135, 6153, E: 3201, 6179.
Of similar occurrence as the preceding species.
46. *Clymene prætermissa* (Malmgren).
Ma: 2643, 3134, 3135, 3170, 3171, 6130, 3149, 6151, 6153, B: 6168, 6169, 6170, 6171, 6180, Þór 16, Þór 17, S: 6175, E: 3200, 3201, 6172, 6178, M: 6150 A, 6166.
This species occurs everywhere on pure clay bottom both in shallower and deeper water. In places very abundant.
47. *Nicomache lumbricalis* (Fabricius).
Ma: 6149.
48. *Maldane sarsi* Malmgren.
Ma: 3135, 6130, 6131, 6149, 6151, 6153, B: 6168, 6171, 6180, Þór 16, Þór 17, E: 3200, 3201, 6172, 6179, M: 6141, Þór 44, (3198).
Of similar occurrence as *Clymene prætermissa*, and very abundant in the bay.
49. *Asychis biceps* (Sars).
E: 6179.
50. *Owenia fusiformis* Delle Chiaje.
Ma: 6153, S: 3147, 3195, 6136, 6154, M: 6143, 6152, 6163, Þór 43.
Common on sand bottom, but also found where the sand is mixed with clay.
51. *Sternaspis scutata* (Ranzani) (fig. 10).
Ma: 3135, 6130, 6131, 6149, 6151, 6153, B: 6168, 6169, 6170, 6171, 6180, 6182, Þór 16, Þór 17, E: 3200, 3201, 6165, 6178, Ma: 2675, 3170, 3171, 3185.
Common and abundant on shallower and deeper clay bottom.
52. *Pectinaria granulata* (L.).
E: 6165, M: 2633, 3139, 3179, 3182, 3183, 6141, 6143, 6150 A, Þór 40.
Seems to be confined to mixed bottom, notably where the *Modiola* epifauna occurs.
53. *Pectinaria auricoma* (O. F. M.).
B: Þór 17, E: 6178, 6179.
New to Iceland.
Only found on soft bottom in the deeper areas.
54. *Pectinaria koreni* Malmgren.
Ma: 6129, 6130, 6151, S: 6137, 6154.
The records of this species are from the sand bottom or from sand mixed with clay.
55. *Amparete grubei* Malmgren.
Ma: 6129, 6130, B: 6170.
56. *Anabothrus gracilis* (Malmgren).
B: 6180, Þór 16, E: 6164, 6167, 6178, 6179, M: 3173, 6141, 6142, 6150 A, 6163, 6166, Þór 44, (3198).
Particularly found in the mixed bottom areas of the *Echinocardium* community and the *Modiola* epifauna.
57. *Amphicteis gunneri* (Sars).
Ma: 3134, B: 6180, E: 6167, M: 2633, 6141, 6142, Þór 43, Þór 44.
This species has a distribution similar to the preceding.
58. *Melinna cristata* (Sars).
Ma: 6151, B: 6168, 6169, 6170, 6171, 6180, 6181, 6182, Þór 17, E: 3200, 3201, 6179, M: 6143, 6147, 6152, 6163, 6166, Þór 43, (3198).
Although not previously recorded from Faxa Bay this is one of the most characteristic species of the deeper clay, and is further found quite abundantly in the *Modiola* areas of shallower water.
59. *Amphitrite cirrata* (O. F. M.).
Ma: 3134, 3136, 6131, 6149, M: 6141, 6142, 6152.
Its habitat is clay or deposits strongly mixed with clay.
60. *Lanice conchylega* (Pallas).
S: 3143, 6136, E: 6164, 6178, M: 6163, (3169).
This species inhabits the sand bottom, but is not abundant in the bay.
61. *Polymnia nesidensis* (Delle Chiaje).
M: 6141, 6142, 6143, 6150 A, 6150 B, 6152, Þór 40, (3206).
This species has been found exclusively in the *Modiola* epifauna.
62. *Nicolea zostericola* (Ørsted).
M: 6150 B.
63. *Pista maculata* (Dalyell).
M: 6147.
64. *Proclea graffii* (Langerhans).
M: 6142.
New to Iceland.
65. *Laphania boecki* Malmgren.
B: 6171, E: 3200, 3201, 6172, 6178, (3198).
Notably found where the sand was mixed with clay, in deeper water.
66. *Thelepus cincinnatus* (Fabricius).
E: 6165, M: 2633
67. *Polycirrus medusa* Grube.
S: 6126, 6155, E: 6173.
68. *Amæa trilobata* (Sars).
M: 6141.
New to Iceland.
69. *Lysilla loveni* Malmgren.
Ma: 6149.
New to Iceland.
70. *Terebellides strömi* Sars.
Ma: 3136, 6130, 6131, 6149, 6151, 6153, B: 6168, Þór 16, Þór 17, E: 6178, 6179, M: 2633, 3173, 6141, 6142, 6143, 6150 A, 6150 B, Þór 43, Þór 44.
A very common and abundant form of the shallower and deeper clay.
71. *Potamilla reniformis* (O. F. M.).
S: 6148, E: 6167, M: 3646, 2669, 3132, 3149, 3173, 6127, 6141, 6142, 6143, 6147, 6150 A, 6150 B, 6152, 6163, Þór 40, Þór 43.
Extremely abundant in the *Modiola* epifauna.
72. *Potamilla torelli* Malmgren.
M: 6143.
73. *Potamilla neglecta* Malmgren.
M: 3184.
74. *Fabricia sabella* (Ehrenberg).
M: 6143.
New to Iceland.
75. *Euchone analis* (Kr.).
E: 6167, M: 6142.
76. *Myxicola infundibulum* (Renier).
Ma: 6130, M: 6141.
New to Iceland.
77. *Serpula vermicularis* L.
M: 3139, 3183.
78. *Pomatoceros triqueter* L.
Ma: 6149, M: 6147, Þór 40, Þór 43, Þór 44.
79. *Ditrupa arietina* (O. F. M.).
B: 6168, 6180, Þór 17, E: 3199.
Only found in the deeper clay of Jökuldjúp, where also great masses of the tubes of this species were encountered.

2. MOLLUSCA.

Placophora.

Chiton cinereus.
Ma: 6149, E: 6165, 6167, M: 6142, 6150 B, Þór 40, Þór 42.
Mainly found on mixed bottom.
Chiton ruber Lowe. M: 6152.

Solenogastres.

Chætoderma nitidulum Lov.
Ma: 3136, 3179, 6130, 6131, 6151, 6153, 3135, B: 6169, S: 6132, E: 6172, M: 6141, 6150 B, 6163, 6166.
This species seems to be common throughout the bay on both clay and mixed bottom.

Gastropoda.

1. *Lepeta coeca* Müll.
   M: 3139, 6141, 6142, 6150 A, Þór 40.
   This species has only been found as a component of the *Modiola* epifauna.
2. *Trochus tumidus.* Mont.
   M: 6143, 6152, 6163.
   Only found in the *Modiola* epifauna.
3. *Amauropsis islandica* Gmel.
   S: 3142, 3143, 6128, 6159, (3202).
   Only ascertained on pure sand bottom in the *Spisula* community.
4. *Lunatia montagui* Forb.
   S: 3195, E: 3201, 6167, M: 6127.
5. *Lunatia pulchella.* Risso.
   S: 6128, 6148, 6159, M: 6143, (Þór 34).
6. *Lunatia pallida.* Brod. & Sowb. Ma: 6130, 6153.
7. *Natica clausa* Brod. & Sowb.
   M: 3181, 3183, 3184, 6150 A, 6156.
   Only found among the *Modiola* epifauna.
8. *Trichotropis borealis* Brod. & Sowb. M: 3182.
9. *Trophon clathratus* L. M: 3183, 3169.
10. *Nassa incrassata* Ström. M: 6143.
11. *Buccinum undatum* L. Ma: 6148, M: 3183.
12. *Neptunea despecta* L.
    E: 6179, M: 3182, 3183.
13. *Clathurella linearis.* (Mont.) M: 6143.

Solenochonchae.

Dentalium entalis L.
Ma: 3135, 6129, 6149, 6151, 6153, 3171, E: 3199, 3200, 3201, 6164, 6165, 6172, 6173.
Found on clay bottom but particularly common on mixed bottom in the *Echinocardium* community.

Lamellibranchiata.

1. *Nucula tenuis* (Montagu).
   Ma: 6151, 6153, S: 3195, 6137, E: 6167, 6172, 6178.
   Found both on clay, sand and on mixed bottom.
2. *Leda pernula* (Müller).
   Ma: 3135, 3136, 6130, 6149, M: 3173, 3184, 6142, 6150 B.
   Found in the shallower clay in the *Macoma* community and the *Modiola* areas.
3. *Leda minuta* (Müller). M: 3182, 3183.
4. *Anomia squamula* L. M: 6141, (Þór 29).
5. *Pecten islandicus* Müller. M: 3183, 3184.
6. *Crenella decussata* (Montagu). Ma: 6129.
7. *Modiola modiolus* (L.). (fig. 15).
   Ma: 6130, M: 2633, 2646, 2669, 2679, 3132, 3133, 3139, 3144, 3149, 3176, 3181, 3182, 3183, 3184, 3203, 6127, 6141, 6142, 6143, 6150 A, 6150 B, 6152, 6156, 6157, 6166, 6147, Þór 40, Þór 44.
   Found on hard and mixed bottom.
8. *Modiolaria nigra* Gray.
   E: 6165, 6173, M: 6127.
   Only found in the outer parts of the bay, outside the Hraun region.
9. *Astarte borealis* (Chemnitz).
   Ma: 6129, 6130, 6131, S: 2650, 6134, 6160, M: 3176.
   Found both on sand and clay bottom.
10. *Astarte montagui* (Dillwyn).
    Ma: 6129, 6130, 6131, 6149, S: 2648, 3143, 3147, 3178, 3189, 3195, 6148, M: 3169, 6150 B, 6163.
    Common both on sand and clay bottom, in places abundant.
11. *Astarte elliptica* (Brown).
    Ma: 6130, M: 3184, 6142, 6152, Þór 43, Þór 44.
    Especially found in the *Modiola* areas.
12. *Axinopsis orbiculata* G. O. Sars. M: Þór 43.
13. *Thyasira flexuosa* (Montagu).
    Ma: 3135, 6129, 6130, 6151, B: 6169, E: 6172, M: Þór 44.
    Found both on shallower and deeper clay bottom, but nowhere abundantly.
14. *Montacuta ferruginosa* (Montagu).
    Ma: 6130, 6153, B: 6168, 6182, Þór 17.
15. *Cardium echinatum* L.
    Ma: 6129, 6130, 6131, 6149.
    Found in the shallower clay.
16. *Cardium ciliatum* Fabricius.
    Ma: 6131, 6149, S: 2648, 2657, M: 2633, 3139, 6150 B.
    Found on shallower clay bottom, also where it was strongly mixed with sand.
17. *Cardium fasciatum* Montagu.
    Ma: 6131, S: 6126, 6148, M: 6127, 6143.
    Found both in clay and in coarse sand or gravel.
18. *Cyprina islandica* (L.). (fig. 13).
    Ma: 3135, 3136, 6151, 6153, S: 2648, 2651, 2652, 2655, 2657, 2672, 3142, 3145, 3146, 3147, 6128, 6136, 6137, 6140, 6154, E: 6164, 6165, 6167, 6172, 6179, M: 3173, (3202).
    Found on sand bottom, also where this was strongly mixed with clay.
19. *Venus ovata* Pennant.
    S: 3147, 6148, E: 6167, M: 6163.
    Found on gravelly bottom.
20. *Macoma calcarea* (Chemnitz). (fig. 9).
    Ma: 2642, 2643, 2675, 3130, 3131, 3135, 3136, 3170, 3171, 3179, 3185, 6129, 6130, 6131, 6149, 6151, 6153, S: 6132 (juv.), 6137 (juv.), E: 3201, M: 3132 (juv.), 3184.
    A characteristic species for the shallower clay; a fullgrown specimen was further found in the deeper clay. Outside the clay areas, this species has only been found juvenile.
21. *Syndosmya prismatica* (Montagu) (fig. 17).
    S: 2648, 2657, 3189, 3195, 6128, 6129, 6135, 6137, 6154, 6175, E: 3199, 3200, 6164, 6167, 6172, (Þór 22).
    Of similar occurrence as *Cyprina islandica*, common and abundant in sand or sand mixed with clay.
22. *Syndosmya nitida* (Müller) (fig. 17).
    Ma: 6129, 6130, 6149, 6151, 6153, B: 6168, 6169, 6170, 6171, 6180, Þór 16, Þór 17, E: 6167, 6178.

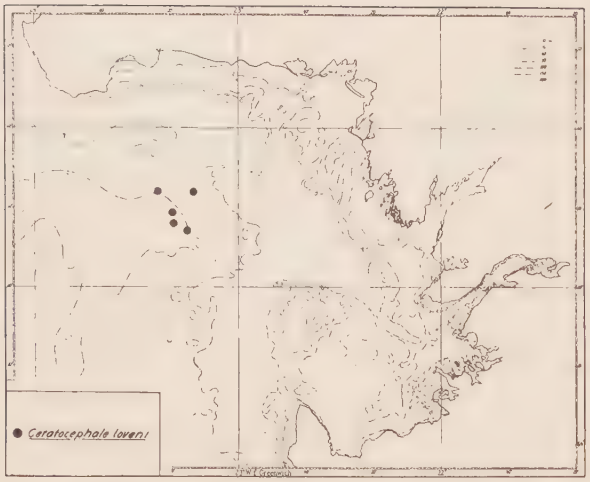

Fig. 8. The distribution of *Ceratocephale loveni* in Faxa Bay.

Fig. 9. The distribution of *Macoma calcarea* in Faxa Bay.

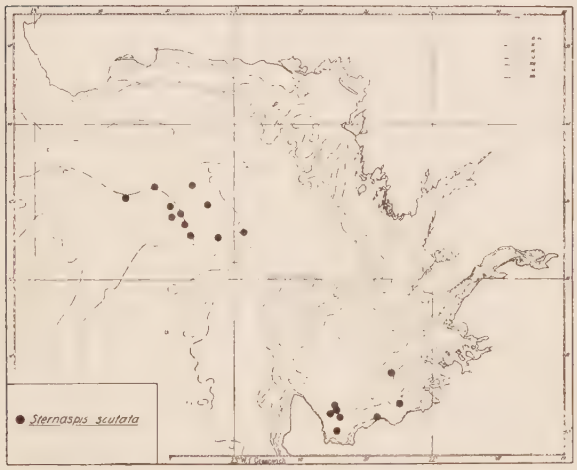

Fig. 10. The distribution of *Sternaspis scutata* in Faxa Bay.

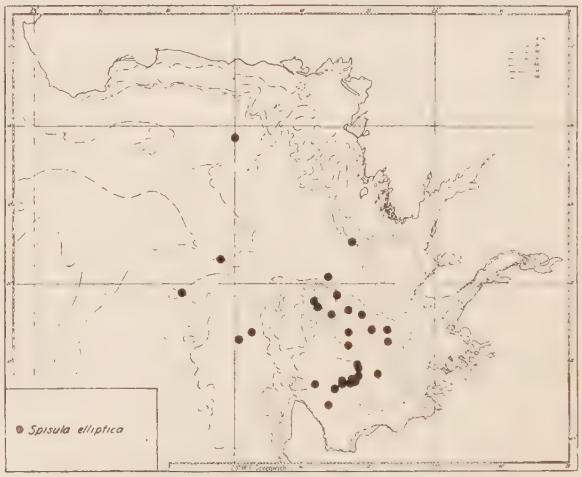

Fig. 11. The distribution of *Spisula elliptica* in Faxa Bay.

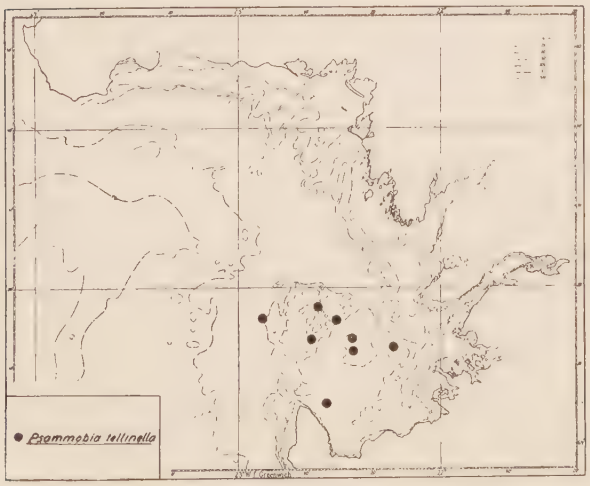

Fig. 12. The distribution of *Psammobia tellinella* in Faxa Bay.

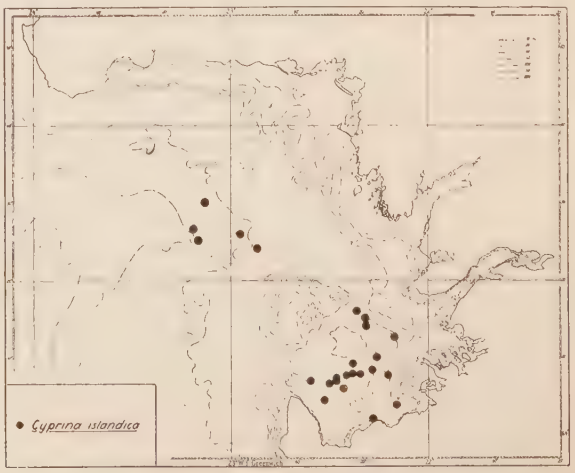

Fig. 13. The distribution of *Cyprina islandica* in Faxa Bay.

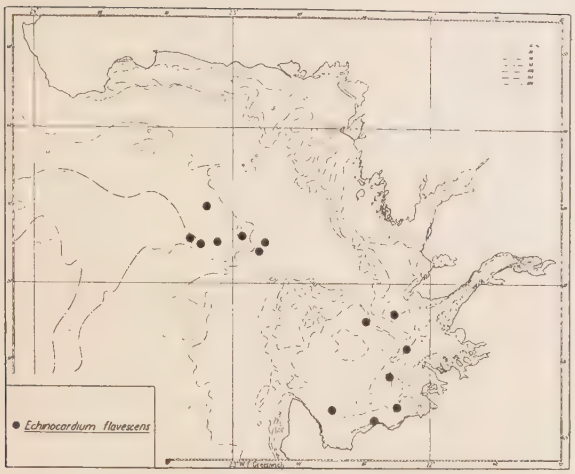

Fig. 14. The distribution of *Echinocardium flavescens* in Faxa Bay.

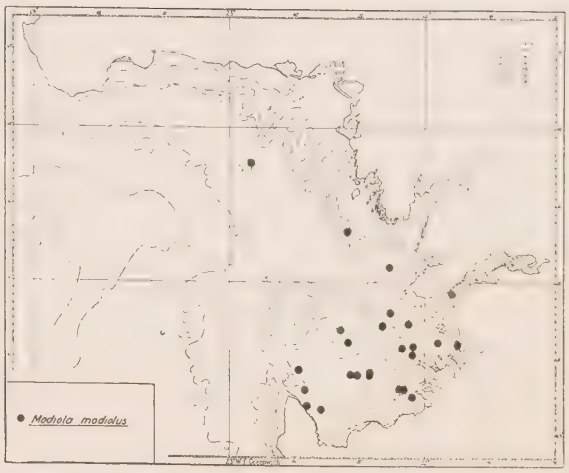

Fig. 15. The distribution of *Modiola modiolus* in Faxa Bay.

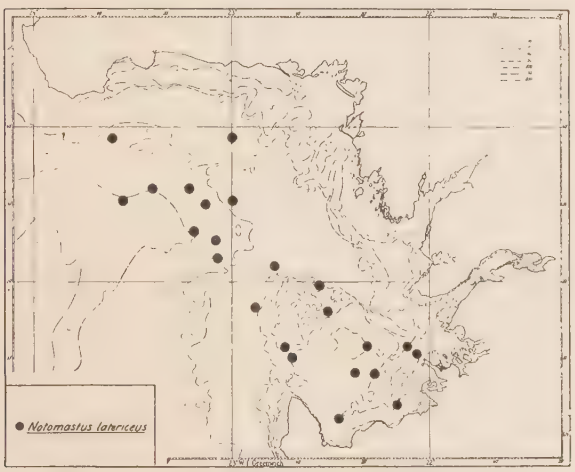

Fig. 16. The distribution of *Notomastus latericeus* in Faxa Bay.

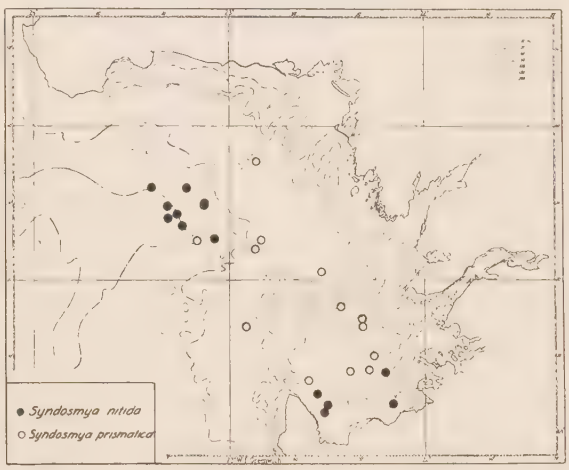

Fig. 17. The distribution of *Syndosmya nitida* and *S. prismatica* in Faxa Bay.

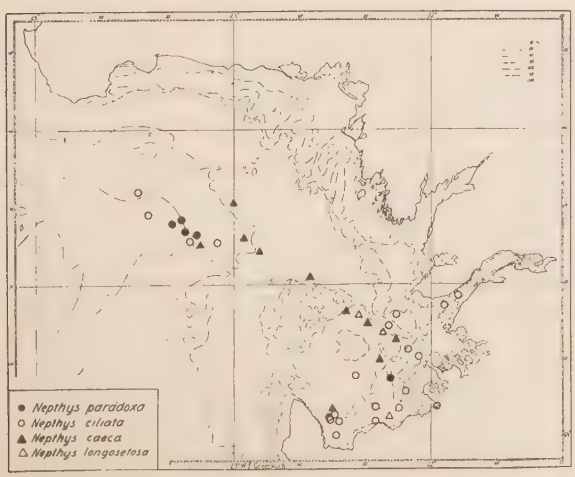

Fig. 18. The distribution of the most common species of *Nephthys*, *Nephthys paradoxa*, *N. ciliata*, *N. caeca*, and *N. longosetosa*, found in Faxa Bay.

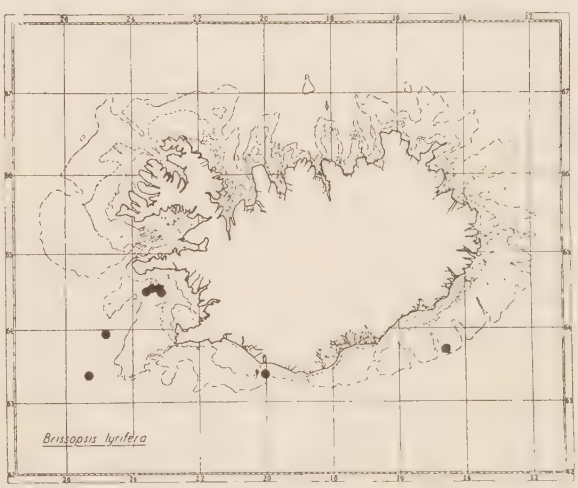

Fig. 19. The distribution of *Brissopsis lyrifera* at Iceland.

Contrary to the preceding species, this is confined to the shallower and deeper clay.

23. *Psammobia tellinella* Lamarck (fig. 12).
S: 2634, 3143, 3178, 3192, 3194, 6122, 6157, 6159.
The only Lamellibranch that is characteristic of the gravel patches of the Hraun region.
24. *Spisula elliptica* Brown (fig. 11).
Ma: 6129, 6130 (juv.), S: 2634, 2648, 2649, 2650, 2651, 2652, 2655, 2657, 2672, 3142, 3145, 3146, 3178, 3189, 3194, 3195, 3197, 3205, 6128, 6134, 6135, 6136, 6138, 6148, 6157, 6159, 6160, 6175, Þór 7, Þór 11, E: 6173.
Characteristic of the sand bottom, very numerous in places.
25. *Saxicava arctica* (L.).
M: 6127, 6166.
Only found in the outer parts of the bay.
26. *Mya truncata* (L.) juv.
Ma: 6129, 6130, S: 3195, M: 6142, 6147.
The records from the grab samples include only juvenile specimens.
27. *Thracia truncata* Brown.
Ma: 6129, 6130, M: Þór 44.
28. *Thracia convexa* Wood. M: 3183.

3. ECHINODERMATA.

1. *Henricia eschrichtii* (Müller & Troschel).
M: 6142.
2. *Solaster glacialis* Dan. & Kor. juv. M: 6141.
New to Iceland.
3. *Leptasterias hyperborea* (Dan. & Kor.). M: 6142.
4. *Leptasterias mülleri* (Sars). M: 6143, 6152.
5. *Asterias rubens* L. S: 6133, E: 3199.
6. *Ophiopholis aculeata* (O. F. M.).
M: 2633, 2646, 2679, 3133, 3183, 3184, 6143, 6157, 6166.
Found exclusively as a component of the *Modiola* epifauna.
7. *Amphiura filiformis* (O. F. M.).
Ma: 6129, 6130, 6131, 6149, 6153, B: 6168, E: 3200, 6172, 6178, 6179.
Found both in shallower and deeper clay, but nowhere abundantly.
8. *Amphipholis squamata* (Delle Chiaje).
Ma: 6130, S: 6122, 6128, 6148, E: 6173, M: 6143
9. *Ophiura texturata* Lamarck. E: 6178.
New to Iceland.
10. *Ophiura affinis* Lütken.
Ma: 6129, 6149, 6151, S: 6136, 6137, E: 3199, 6164, 6165, 6173, (Þór 18).
Notably found on mixed bottom; one of the more common Echinoderms.
11. *Ophiura robusta* Ayres.
S: 6122, 6125, M: 6152, 6166.
12. *Ophiura albida* Forbes.
Ma: 3131, 6130, 6131, B: 6180, S: 2652, 3189, 6128.
13. *Ophiura albida* var. *tuberculosa* Mort.
Ma: 6129, S: 2648, 6132, 6135, 6137, 6154, E: 6164, 6165.
14. *Strongylocentrotus droebachiensis* (O. F. M.).
S: 2651, M: 6141, 6152, Þór 40.
Mainly found among the *Modiola* epifauna.
15. *Echinocyamus pusillus* (O. F. M.). E: 6165.
New to Iceland.
The dead tests of this species have been recorded from Iceland (Mortensen 1924, p. 192) but this is the first record of the living animal.
16. *Spatangus purpureus* O. F. M.
E: 6165, 6173.
Found on mixed bottom outside the Hraun region.
17. *Echinocardium flavescens* (O. F. M.). (fig. 14).
Ma: 3135, 3136, 6130, 6151, 6153, S: 2649 (juv.), 6135 (juv.), 6136 (juv.), 6137, E: 3199, 3200, 3201, 6164, 6165, 6167, 6172, 6178, M: 6141, Þór 40.
Found in the shallower clay, and is particularly common in the mixed bottom areas of the Hraun region.
18. *Brissopsis lyrifera* (Forbes). (fig. 19).
B: 6168, 6169, 6182, Þór 17.
Exclusively confined to the ooze bottom in the Jökuldjúp.
19. *Psolus phantapus* (Strussenf.).
Ma: 6153, M: 6150 B (juv.).

4. Conclusions.

When following the distribution of the different species recorded above some recurring distributional types may be named, which are seen to be related to the nature of the bottom and to the depth.

Several species have thus been found exclusively confined to the **deeper clay** of the Jökuldjúp as is shown by the distribution of **Ceratocephale loveni** in fig. 8. Of other species with the same type of distribution might be mentioned: *Glycera rouxii, Disoma multisetosum, Spiochætopterus typicus, Diplocirrus glaucus, Pectinaria auricoma, Laphania boecki, Ditrupa arietina,* and *Brissopsis lyrifera* (see fig. 19). Exclusively confined to the **shallower clay**, as is shown by the distribution of **Macoma calcarea** in fig. 9, are only a few species, but *Laonice cirrata* and *Cardium echinatum* may be mentioned. On the other hand many species are recorded from both **the shallower and the deeper clay**, as is shown by the distribution of **Sternaspis scutata** in fig. 10. Among these the following are of common occurrence here: *Nephthys paradoxa* (see fig. 18), *Rhodine gracilior, Clymene gracilis, Clymene prætermissa, Mal-*

dane sarsi, Melinna cristata, Terebellides strømi, Thyasira flexuosa, Syndosmya nitida (see fig. 17) and *Amphiura filiformis.*

Of the species, which are confined to the **sand, Spisula elliptica** is the most common and most characteristic, the distribution of which is shown in fig. 11. Among animals of similar occurrence might be mentioned *Nephthys longosetosa* (see fig. 18) *Onuphis conchylega, Ophelia limacina, Venus ovata* and *Amauropsis islandica.* Some animals, such as **Psammobia tellinella**, the distribution of which is shown in fig. 12, are notably found in **coarse sand or gravel** in the Hraun region or north of it. Of similar occurrence are likewise *Saxicava arctica* and *Modiolaria nigra.*

A number of species have a still wider distribution, not being confined to sand or clay, but penetrating or mainly occurring on **mixed bottom**. Among these two types of distribution may be defined. On the one hand such a distribution as is shown in fig. 13 for **Cyprina islandica**, occurring on **sand or mixed bottom**, and on the other hand a distribution such as that shown in fig. 14 for **Echinocardium flavescens** occurring on **clay or mixed bottom.** As further examples of the former type might be mentioned: *Nephthys caeca* (see fig. 18), *Glycera capitata, Spiophanes kröyeri, Owenia fusiformis, Pectinaria koreni, Lanice concylega, Nucula tenuis, Syndosmya prismatica* (see fig. 17) and *Ophiura affinis*, and of the latter type are: *Gattyana cirrosa, Nephthys ciliata* (see fig. 18), *Goniada maculata, Lumbriconereis fragilis, Chætozone setosa, Anabothrus gracilis, Amphicteis gunneri, Amphitrite cirrata, Chiton cinereus, Chætoderma nitidulum, Dentalium entalis, Leda pernula* and *Cardium ciliatum.*

A number of species have been found confined exclusively to the **Modiola epifauna** of which the distribution of **Modiola modiolus**, shown in fig. 15, is an example. The species of similar occurrence are: *Lepidonotus squamatus, Syllis cornuta, Eunice pennata, Pectinaria granulata, Polymnia nesidensis, Potamilla reniformis, Lepeta coeca, Trochus tumidus, Natica clausa, Astarte elliptica, Ophiopholis aculeata,* and *Strongylocentrotus droebachiensis.*

Lastly several species are of **ubiquituous occurrence**, as is shown by the distribution of **Notomastus latericeus** in fig. 16, being found on all kinds of bottom. This also seems to be the case with regard to *Scoloplos armiger, Astarte borealis, Astarte montagui* and *Cardium fasciatum*; *Astarte borealis* and *A. montagui* are, however, only found in the shallower parts of the bay.

Most of the genera found in the bay are only represented by one species. Where the genus is represented by more than one species these apparently inhabit different kinds of bottom, as is shown by the distribution of the genera *Syndosmya* and *Nephthys* in figs. 17 and 18 (see also the review of species). Of other examples of the same kind might be mentioned the genus *Pectinaria* with *P. granulata, P. koreni* and *P. auricoma*, and the genus *Glycera* with *G. capitata* and *G. rouxii.*

A number of species, 21 Polychæts and 3 Echinoderms are here recorded from Iceland for the first time. The Polychæts are the following: *Harmothoe longisetis, Polynoe scolopendrina, Polynoe kinbergi, Syllis cornuta, Ceratocephale loveni* (fig. 8), *Nephthys hombergi, Nephthys incisa, Nephthys paradoxa* (fig. 18), *Glycera rouxii, Laonice cirrata, Spiophanes kröyeri, Spiophanes bombyx, Disoma multisetosum, Spiochætopterus typicus, Diplocirrus glaucus, Pectinaria auricoma, Lysilla loveni, Proclea graffii, Amœa trilobata, Fabricia sabella,* and *Myxicola infundibulum.* The Echinoderms here recorded for the first time from Iceland are: *Solaster glacialis, Ophiura texturata* and *Echinocyamus pusillus.*

Appendix.

List of stations operated in Faxa Bay 1926—1939.

1926 ("Dana"):

St. nr.	Date	Position	Depth in m.	Table[1])	Temp.	S ‰	Remarks
2633	21-6	64°14′5″ N. 22°13′ W.	55	Sp. '29, VI & Sp. '37, XII	..	..	
2634	—	64°12′ N. 22°26′ W.	25	Sp. '29, IX	..	..	
2642	25-6	64°04′ N. 21°55′6″ W.	6	Sp. '29, VII	..	..	Clay.
2643	—	64°04′2″ N. 21°58′ W.	15	Sp. '29, VII	..	..	Clay.
2646	—	64°06′ N. 22°07′5″ W.	35	Sp. '29, VI	8.75	34.63	Sand, stones.
2648	—	64°08′ N. 22°23′ W.	38	Sp. '29, IX	7.51	34.63	Sand, shells.
2649	27-6	64°07′3″ N. 22°23′8″ W.	37	Sp. '29, IX	..	..	Sand.
2650	—	64°07′2″ N. 22°25′8″ W.	37	Sp. '29, IX	..	..	Sand.
2651	—	64°07′ N. 22°28′ W.	36	Sp. '29, IX	..	..	Sand.
2652	—	64°06′6″ N. 22°30′2″ W.	37	Sp. '29, IX	..	..	Sand.
2655	—	64°09′2″ N. 22°23′ W.	27	Sp. '29, IX	..	..	Sand.
2657	—	64°08′3″ N. 22°17′ W.	37	Sp. '29, IX	..	..	Sand.
2669	30-6	64°22′ N. 22°11′ W.	38	Sp. '29, VI	..	..	Stones, sand, shells.
2672	1-7	64°14′ N. 22°19′ W.	38	Sp. '29, IX	..	..	Sand.
2675	—	64°00′3″ N. 22°29′ W.	33	Sp. '29, VI	..	..	Sand, shells.
2679	—	64°03′7″ N. 22°36′5″ W.	23	Sp. '29, VI	..	..	Stones.

1927 ("Dana"):

3130	28-7	64°03′9″ N. 21°55′5″ W.	8	Sp. '29, VII	11.19	34.00	Clay.
3131	—	64°04′2″ N. 21°58′6″ W.	15	Sp. '29, VII	..	..	Clay.
3132	—	64°05′ N. 22°04′ W.	20	Ttbl. 11	9.27	34.54	Stones, shells.
3133	—	64°06′ N. 22°06′5″ W.	25	Sp. '29, VI	..	..	Stones, shells.
3134	—	64°04′ N. 22°17′ W.	42	Ttbl. 2	8.47	34.65	4 l. clay mixed with sand and pepples.
3135	—	64°02′ N. 22°17′ W.	39	Tbl. I	..	..	7 l. clay.
3136	—	64°03′2″ N. 22°23′5″ W.	40	Ttbl. 2	8.48	34.69	3 l. clay with shells.
3139	—	64°03′3″ N. 22°32′ W.	39	Sp. '29, VI & Sp. '37, XII	9.95	34.78	2.5 l. clay mixed with sand. Shells.
3142	—	64°04′3″ N. 22°32′ W.	34	Tbl. IV	..	..	3 l. coarse white sand with shell fragments.
3143	—	64°05′3″ N. 22°34′ W.	41	Tbl. IV	..	..	4.5 l. coarse white sand with basaltic pepples.
3144	—	64°05′8″ N. 22°37′ W.	..	Sp. '29, VI	..	..	0.5 l. sand with shells.
3145	—	64°07′3″ N. 22°28′ W.	39	Sp. '29, IX	..	..	4.5 l. white sand with shells.
3146	—	64°07′7″ N. 22°25′ W.	39	Sp. '29, IX	9.39	34.65	8 l. sand with shell fragments.
3147	—	64°08′ N. 22°21′ W.	41	Tbl. IV	..	..	0.75 l. coarse sand.
3149	—	64°08′3″ N. 22°17′ W.	40	Sp. '29, VI	..	..	2 l. grey sand.
3169	2-8	64°04′4″ N. 22°36′ W.	34	..	..	..	1 l. grey sand, shells. Following animals were found in the sample; *Astarte montagui* (19)[2]), *Trophon clathratus* (1), *Lanice conchylega* (1), *Hyas* sp. (1).
3170	—	64°02′3″ N. 22°31′ W.	35	Sp. '29, VII	..	..	7 l. clay, shells.
3171	—	64°03′ N. 22°29′ W.	35	Sp. '29, VII	..	..	7 l. clay, shells.
3173	—	64°05′9″ N. 22°26′ W.	40	Tbl. VII	..	..	3 l. clay, shells. Contents: *Leda pernula* (2), *Modiola modiolus* (6), *Cyprina islandica* (1), *Chiton* sp. (3), *Anabothrus gracilis* (1), *Terebellides strömi* (1), *Potamilla reniformis* (1), *Phascolion strombi* (1).
3176	—	64°08′ N. 22°21′ W.	38	Tbl. VII	..	..	0.5 l. shells.
3178	—	64°12′5″ N. 22°14′ W.	28	Sp. '29, IX	..	..	13 l. sand, stones, shells.
3179	—	64°14′5″ N. 22°13′ W.	61	Ttbl. 2	..	..	4.5 l. black sand, stones, shells.
3181	3-8	64°14′5″ N. 22°05′ W.	27	Sp. '37, XII	..	..	1.5 l. gray sand, pepples, shells.
3182	3-8	64°11′5″ N. 22°03′5″ W.	40	Sp. '37, XII	..	..	1 l. sand mixed with clay, shells.
3183	—	64°12′ N. 21°56′ W.	36	Sp. '37, XII	9.13	34.72	2 l. sand mixed with clay, shells.

[1]) Sp. '29, VI refers to Table VI in Spärcks paper from 1929 etc. *Tbl.* to the tables in the present paper. *Ttbl.* to the tables in the text of the present paper.

[2]) The bracheted numbers are the numbers of individuals found.

St. nr.	Date	Position	Depth in m.	Table	Temp.	S ‰	Remarks
3184	—	64°11′8″ N. 21°50′ W.	23	Sp. '29, VI & Sp. '37, XII	..	..	7.5 l. sand mixed with clay, shells.
3185	—	64°11′8″ N. 21°43′3″ W.	11	Sp. '29, VII	11.32	34.14	5 l. clay, shells[1]).
3189	5-8	64°14′ N. 22°19′ W.	42	Sp. '29, IX	8.82	34.88	4 l. grey sand.
3192	—	64°13′4″ N. 22°38′5″ W.	51	Sp. '29, IX	..	..	12 l. coarse sand, pepples.
3194	—	64°17′7″ N. 22°36′5″ W.	35	Tbl. III	..	..	15 l. coarse sand.
3195	—	64°21′ N. 22°32′ W.	72	Tbl. IV	..	..	2 l. black sand.
3197	—	64°25′2″ N. 22°25′ W.	44	..	..	..	0.5 l. pepples and shellgravel. Contents: 1 *Spisula elliptica*.
3198	—	64°25′ N. 22°37′ W.	75	..	..	..	5 l. gravel, stones, shells. Contents: *Eunice pennata* (1), *Maldane sarsi* (1), *Melinna cristata* (1), *Anabothus gracilis* (1), *Laphania boecki* (1).
3199	—	64°25′2″ N. 22°50′5″ W.	89	Tbl. V	..	..	1 l. black sand.
3200	—	64°25′3″ N. 23°05′ W.	121	Tbl. V	7.46	35.12	8 l. clay mixed with sand.
3201	6-8	64°25′7″ N. 23°13′5″ W.	145	Tbl. V	..	..	22 l. black ooze.
3202	—	64°30′4″ N. 23°00′ W.	98	..	..	..	5 l. shells, gravel. Contents: *Cyprina islandica* juv. (1), *Amauropsis islandica* (1), *Nephthys caeca* (1), *Notomastus latericeus* (1).
3203	—	64°35′4″ N. 22°53′7″ W.	59	Sp. '29, VI	..	..	1 l. grey sand.
3205	—	64°38′5″ N. 23°00′ W.	71	Tbl. III	..	..	5 l. grey sand, pepples.
3206	—	64°38′5″ N. 23°11′5″ W.	93	..	..	..	Stones. Contents: *Chiton* sp. (1), *Eunice pennata* (2), *Polymnia nesidensis* (1).
3208	—	64°38′5″ N. 23°36′ W.	105	..	7.52	35.12	Pepples. Contents: *Notomastus latericeus* (4), *Phascolion strombi* (2), *Sponges*.
3209	—	64°38′5″ N. 23°47′ W.	105	..	7.31	35.17	Stones. Contents: *Chiton* sp. (1), *Eunice pennata* (1), *Harmothoe longisetis*? (1), *Bryozoa*.
1938 ("Þór"):							
1	15-12	64°03′8″ N. 22°34′5″ W.	41	..	..	..	Hard bottom, no animals.
2	—	64°05′3″ N. 22°38′5″ W.	40	..	..	..	Shell fragments, no animals.
3	—	64°06′7″ N. 22°42′5″ W.	47	..	..	..	Hard bottom, no animals.
4	—	64°08′3″ N. 22°46′7″ W.	58	..	..	..	Hard bottom, no animals.
5	—	64°09′8″ N. 22°50′2″ W.	70	..	..	..	Hard bottom, no animals.
6	—	64°11′1″ N. 22°55′ W.	63	..	..	..	Hard bottom, no animals.
7	—	64°12′8″ N. 22°59′ W.	81	..	..	..	Shell fragments. Contents: *Spisula elliptica* (1).
8	—	64°14′3″ N. 23°03′5″ W.	88	..	..	..	Hard bottom, no animals.
9	—	64°15′9″ N. 23°07′9″ W.	108	..	..	..	Hard bottom, no animals.
10	—	64°17′3″ N. 23°12′ W.	100	..	..	..	Hard bottom, no animals.
11	—	64°18′9″ N. 23°16′ W.	102	..	..	..	Shell fragments. Contents: *Spisula elliptica* (1).
12	—	64°20′4″ N. 23°20′ W.	92	..	..	..	Hard bottom, no animals.
13	—	64°21′9″ N. 23°24′5″ W.	130	..	..	..	Hard bottom, no animals.
14	—	64°23′2″ N. 23°28′7″ W.	166	..	..	..	Hard bottom, no animals.
15	—	64°26′1″ N. 23°20′5″ W.	145	..	..	..	Hard bottom, no animals.
16	—	64°28′5″ N. 23°16′2″ W.	146	Tbl. II	..	..	Black ooze.
17	—	64°29′7″ N. 23°08′ W.	124	Tbl. II	..	..	Black ooze.
18	—	64°30′8″ N. 23°09′ W.	100	..	..	..	Gravel. Contents: *Ophiura affinis* (1).
19	—	64°32′ N. 23°04′ W.	89	..	..	..	Hard bottom, no animals.
20	—	64°33′3″ N. 23°00′ W.	72	..	..	..	Hard bottom, no animals.
21	—	64°34′4″ N. 22°56′ W.	62	..	..	..	Hard bottom, no animals.
22	—	64°35′5″ N. 22°52′ W.	62	..	..	..	Shell fragments. Contents: *Syndosmya prismatica* (1).
23	—	64°36′8″ N. 22°48′2″ W.	59	..	..	..	Hard bottom. Contents: *Sthenelais filamentosus* (1).
24	16-12	64°43′5″ N. 22°30′6″ W.	18	..	..	..	Hard bottom, no animals.
25	—	64°41′1″ N. 22°37′ W.	46	..	..	..	Hard bottom. Contents: *Sthenelais filamentosus* (1).
26	—	64°39′2″ N. 22°40′2″ W.	52	..	..	..	Hard bottom. Contents: *Eupagurus* sp. (1).
27	—	64°37′5″ N. 22°43′1″ W.	61	..	..	..	Hard bottom. Contents: *Nephthys caeca* (1).
28	—	64°35′7″ N. 22°42′1′ W.	64	..	..	..	Hard bottom, no animals.
29	—	64°33′7″ N. 22°41′ W.	62	..	..	..	Hard bottom. Contents: *Anomia squamula* (1), *Eupagurus* sp. (1), *Balanus* sp. (1).

[1]) By mistake numbered 6184 in Spärck 1929, Table VII.

St. nr.	Date	Position	Depth in m.	Table	Temp.	S ‰	Remarks
30	16-12	64°31′7″ N. 22°40′ W.	50	..	..	..	Hard bottom, no animals.
31	—	64°29′8″ N. 22°39′ W.	68	..	..	..	Hard bottom, no animals.
32	—	64°27′8″ N. 22°37′8″ W.	70	..	..	..	Hard bottom, no animals.
33	—	64°26′ N. 22°36′3″ W.	70	..	..	..	Hard bottom, no animals.
34	—	64°24′4″ N. 22°33′6″ W.	68	..	..	..	Basaltic gravel, rolled. Contents: *Lunatia pulchella* (1), *Scoloplos armiger* (1).
35	—	64°22′9″ N. 22°30′8″ W.	70	..	..	..	Hard bottom, no animals.
36	—	64°20′9″ N. 22°26′5″ W.	70	..	..	..	Hard bottom, no animals.
37	—	64°18′8″ N. 22°22′4″ W.	62	..	..	..	Hard bottom, no animals.
38	—	64°17′1″ N. 22°18′2″ W.	62	..	..	..	Hard bottom, no animals.
39	—	64°15′9″ N. 22°15′5″ W.	58	..	..	..	Hard bottom, no animals.
40	—	64°16′ N. 22°10′8″ W.	46	Tbl. VI	..	..	
41	—	64°16′1″ N. 22°05′5″ W.	38	..	..	..	Basaltic gravel and shells, no animals.
42	—	64°16′8″ N. 22°00′ W.	28	..	..	..	Contents: *Chiton cinereus* (1), *Polych. indet.* (2).
43	—	64°17′2″ N. 21°56′ W.	38	Tbl. VI	..	..	
44	—	64°18′5″ N. 21°51′8″ W.	37	Tbl. VI	..	..	
1939 ("Dana"):							
6122	21-7	64°16′5″ N. 22°53′ W.	50	Tbl. III	9.12	..	30 l. shells.
6123	—	64°14′ N. 22°50′ W.	49	..	..	..	Basaltic stones; no animals.
6124	—	64°13′ N. 22°47′ W.	34	..	..	..	Hard bottom. Animals found: *Syllis* sp. (1), *Polydora ciliata* (c), *Pomatoceros triqueter* (c), *Balanus balanus* (3), *Eupagurus* sp. (1), *Saxicava arctica* (6), *Asterias rubens* (1), *Ophiopholis aculeata* (3), *Diademnum albidum*.
6125	—	64°11′5″ N. 22°44′5″ W.	42	Tbl. III	..	..	12 l. shells.
6126	—	64°10′ N. 22°42′ W.	39	Tbl. III	..	..	7 l. shells; basaltic stones.
6127	—	64°08′5″ N. 22°39′ W.	40	Ttbl. 11	..	..	1 l. shells and stones.
6128	—	64°07′ N. 22°36′ W.	36	Tbl. IV	..	..	12 l. coarse shellsand.
6129	—	64°05′ N. 22°33′5″ W.	33	Ttbl. 3	..	..	3 l. basaltsand mixed with clay; shells.
6130	—	64°03′5″ N. 22°30′ W.	37	Tbl. I	..	..	9 l. clay mixed with sand.
6131	22-7	64°02′ N. 22°28′ W.	33	Tbl. I	..	..	13 l. clay; shells.
6132	—	64°21′ N. 22°37′ W.	65	Tbl. III	..	..	1 l. basaltsand.
6133	—	64°19′5″ N. 22°33′5″ W.	55	Tbl. III	..	..	14 l. coarse shellsand.
6134	—	64°18′5″ N. 22°29′5″ W.	46	Tbl. IV	..	..	12 l. coarse shellsand.
6135	—	64°16′5″ N. 22°26′ W.	43	Tabl. IV	..	..	5 l. grey sand (2 ×).
6136	—	64°16′ N. 22°22′ W.	37	Tbl. IV	..	..	5 l. grey sand (2 ×).
6137	—	64°15′ N. 22°19′5″ W.	53	Tbl. IV	..	..	3 l. basaltsand (2 ×).
6138	—	64°14′ N. 22°14′5″ W.	43	Tbl. IV	..	..	6 l. coarse shellsand (2 ×).
6140	—	64°12′7″ N. 22°10′5″ W.	43	Tbl. IV	..	..	6 l. shellsand.
6141	—	64°11′5″ N. 22°07′ W.	41	Tbl. VI	..	..	5 l. stones, pepples mixed with clay.
6142	—	64°10′5″ N. 22°04′ W.	36	Tbl. VI	..	..	10 l. stones, pepples mixed with clay (2 ×).
6143	26-7	64°26′5″ N. 22°24′ W.	42	Tbl. VI	..	..	1 l. shellsand mixed with clay.
6145	—	64°13′5″ N. 22°35′ W.	37	..	..	..	Rock. No animals.
6146		64°11′5″ N. 22°36′ W.	41	..	..	..	Rock. *Pomatoceros triqueter* (cc).
6147	—	64°08′5″ N. 22°39′ W.	39	Ttbl. 11	..	..	1 l. basaltsand; shells (2 ×).
6148	—	64°09′5″ N. 22°23′5″ W.	30	Tbl. IV	..	..	6 l. gravel; shells.
6149	27-7	64°02′5″ N. 22°31′3″ W.	35	Tbl. I	..	..	6 l. clay.
6150 A	—	64°08′ N. 22°23′ W.	37	Tbl. VI	..	..	2.5 l. clay; shells.
6150 B	—	64°08′ N. 22°17′ W.	40	Tbl. VI	..	..	2 l. clay; shells (2 ×).
6151	28-7	64°03′8″ N. 22°10′ W.	45	Tbl. I	..	..	12 l. clay; shells.
6152	—	64°06′ N. 22°08′ W.	27	Tbl. VI	10.32	..	7 l. gravel and stones mixed with clay (2 ×).
6153	—	64°07′8″ N. 22°12′6″ W.	48	Tbl. I	..	..	9 l. clay; shells (2 ×).
6154	—	64°10′ N. 22°15′8″ W.	36	Tbl. IV	..	..	12 l. shellsand (2 ×).
6155	—	64°11′5″ N. 22°19′2″ W.	29	Tbl. III	..	..	15 l. gravel; shells.
6156	—	64°12′2″ N. 22°23′5″ W.	19	Ttbl. 11	..	..	2 l. coarse shellsand.
6157	—	64°13′7″ N. 22°26′ W.	19	Ttbl. 7	..	..	12 l. gravel; shells (2 ×).
6158	—	64°15′ N. 22°28′5″ W.	29	..	..	..	Rock. No animals.
6159	—	64°16′ N. 22°31′ W.	46	Tbl. III	..	..	15 l. gravel; shells.
6160	—	64°17′ N. 22°35′ W.	45	Tbl. III	..	..	15 l. gravel; shells.
6161	—	64°19′ N. 22°38′ W.	25	..	..	..	Rock. Animals found: *Asterias rubens* (2), *Ophiopholis aculeata* (1), *Eupagurus* sp. (1).
6162	—	64°20′5″ N. 22°41′5″ W.	28	..	..	..	Rock.
6163	—	64°22′ N. 22°47′ W.	68	Tbl. VI	..	..	3.5 l. shellsand with pebbles.
6164	—	64°24′ N. 22°52′ W.	87	Tbl. V	..	..	9 l. sand mixed with clay (2 ×).

St. nr.	Date	Position	Depth in m.	Table	Temp.	S ‰	Remarks
6165	28-7	64°26′ N. 22°57′ W.	110	Tbl. V	..	..	12 l. sand mixed with clay (2 ×).
6166	—	64°28′ N. 23°02′ W.	116	Ttbl. 9	..	..	2 l. gravel mixed with clay (2 ×).
6167	—	64°30′ N. 23°08′ W.	113	Tbl. V	..	..	5 l. gravel mixed with clay (2 ×).
6168	—	64°32′ N. 23°13′ W.	128	Tbl. II	7.77	..	Ooze.
6169	—	64°32′ N. 23°24′ W.	149	Tbl. II	..	..	Ooze.
6170	—	64°29′5″ N. 23°19′5″ W.	158	Tbl. II	7.39	35.21	Ooze.
6171	—	64°27′ N. 23°15′ W.	155	Tbl. II	..	..	Ooze.
6172	—	64°25′ N. 23°10′ W.	125	Tbl. V	..	..	10 l. sand mixed with clay (2 ×).
6173	—	64°23′ N. 23°04′5″ W.	106	Tbl. V	..	..	15 l. sand mixed with clay.
6174	—	64°21′ N. 23°00′ W.	80	..	..	..	Rock.
6175	—	64°13′8″ N. 22°55′ W.	78	Tbl. IV	8.40	35.05	7 l. sand; shells.
6178	29-7	64°25′3″ N. 23°05′ W.	122	Tbl. V	8.01	35.14	6 l. sand mixed with clay.
6179	—	64°26′5″ N. 23°11′5″ W.	136	Tbl. V	..	..	12 l. sand mixed with clay.
6180	—	64°28′ N. 23°19′ W.	154	Tbl. II	..	..	Ooze.
6181	—	64°29′ N. 23°26′ W.	162	Tbl. II	..	..	Ooze.
6182	—	64°30′5″ N. 23°33′ W.	165	Tbl. II	..	..	Ooze.

Bottom temperatures and salinities have further been determined at following stations[1]) (The fixed stations at Akranes and at Skagi not included).

	St. nr.	Date	Position	Depth in m.	Temp.	S ‰
"Dana"	48	4-7-03	64°23′ N. 22°52′ W.	85	7.31	35.07
—	112	28-7-04	64°25′ N. 22°53′ W.	95	8.11	35.07
—	2127	9-6-24	64°04′ N. 22°50′ W.	30	7.73	..
—	2170	7-7-24	64°04′ N. 22°35′ W.	30	8.52	34.46
—	2640	24-6-26	64°04′ N. 22°34′ W.	29	8.98	34.45
—	2658	27-6-26	64°08′5″ N. 22°15′ W.	47	7.33	34.72
—	2666	30-6-26	64°16′ N. 22°01′5″ W.	30	8.39	34.60
—	2677	1-7-26	64°04′3″ N. 22°32′ W.	35	8.69	34.60
—	3132	28-7-27	64°05′ N. 22°04′ W.	20	9.27	34.54
—	3137	28-7-27	64°02′2″ N. 22°29′ W.	37	9.96	34.83
—	3138	〃	64°02′6″ N. 22°34′ W.	30	9.99	34.79
—	3151	29-7-27	64°00′ N. 22°48′ W.	80	8.15	35.12
—	3193	5-8-27	64°13′4″ N. 22°42′5″ W.	40	9.56	34.94
—	3196	—	64°24′5″ N. 22°27′ W.	65	7.92	34.99
—	3204	6-8-27	64°38′5″ N. 22°50′ W.	35	8.45	34.87
—	4421	3-7-32	64°00′ N. 22°32′ W.	32	8.83	34.92
—	4422	5-7-32	64°05′ N. 22°22′ W.	44	8.54	..
	..	23-6-08	64°01′ N. 22°30′ W.	34	7.70	34.47
	..	19-6-08	64°16′ N. 22°07′ W.	50	7.00	34.92
	..	16-10-27	64°02′ N. 22°27′ W.	38	8.80	34.69
	..	17-10-27	64°11′ N. 22°12′ W.	28	8.30	34.69
	..	24-6-25	64°06′ N. 22°34′ W.	25	7.70	34.52
	..	10-6-03	64°10′ N. 23°22′ W.	100	6.79	35.14
	..	4-7-03	64°39′ N. 23°40′ W.	90	7.13	35.07
	..	27-8-04	64°41′ N. 23°49′ W.	74	8.11	34.99
	..	22-6-25	64°11′ N. 23°17′ W.	110	6.98	35.08
	..	21-6-25	64°33′ N. 23°26′ W.	125	6.28	35.12
		Extraterritorial station (64°08′ N. 22°23′ W.):				
	..	9-6-24	..	30	6.12	..
	..	1-8-25	..	35	9.28	34.78
	..	7-8-25	..	30	9.83	34.45
	..	24-6-25	..	30	8.11	34.45
	..	28-7-31	..	30	10.01	34.92
	..	5-7-32	..	44	7.41	34.86
	..	22-8-33	..	43	9.28	34.97
	..	14-5-34	..	40	5.16	34.60
		Territorial station (64°03′ N. 22°33′ W.):				
	..	3-8-25	..	30	8.75	34.61
	..	6-8-25	..	35	9.99	34.11
	..	26-7-31	..	30	9.20	34.99
	..	21-8-33	..	35	9.17	34.74
	..	12-5-34	..	34	5.77	34.56

[1]) The data derived from Bulletin Hydrographique 1902—1936.

References.

Bárðarson, G. G.: Om den marine Molluskfauna ved Vestkysten af Island. Det kgl. Danske Vid. Selsk. biol. Medd. II, 3 **1920**.

Blegvad, H.: Animal communities in the southern North Sea. Proc. Zool. Soc. London **1922**.

Boysen Jensen, P.: Valuation of the Limfjord. Rep. Dan. Biol. Stat. XXVI **1919**.

Broch, H.: Untersuchungen über die marine Bodenfauna bei Lindesness im Juni 1926. Avhdl. Norske Vidensk. Akad. Mat.-nat. Kl. 1927 Oslo. **1927**.

Conseil Permanent International pour l'Exploration de la Mer: Bulletin Hydrographique 1902—1936.

Davis, F. M.: Quantitative studies on the fauna of the sea bottom. No. 1. Preliminary Investigations of the Dogger Bank. Fish. Invest. Ser. II, vol. 8, no. 4. **1923**.

— Quantitative studies on the fauna of the sea bottom. No. 2. Results of the Investigations in the Southern North Sea, 1921—1924. Fish. Invest., Ser. II, vol. 8, no. 4. **1925**.

Den islandske Lods, 5. Udg. Kbh. **1927**.

Ditlevsen, Hj.: Annelides I. The Danish Ingolf Expedition, vol. IV, no. 4. **1917**.

Ford, E.: Animal communities of the level sea bottom in the waters adjacent to Plymouth. Journ. Mar. Biol. Ass. N. S. 13. **1923**.

Hagmeier, A.: Vorläufiger Bericht über die vorbereitenden Untersuchungen der Bodenfauna der Deutschen Bucht mit dem Petersen Bodengreifer. Ber. d. Deutschen wiss. Komm. f. Meeresf. N. F. 1. **1923**.

— Die Bodenfauna der Ostsee im April 1929 nebst einigen Vergleichen mit April 1925 und Juli 1926. Ber. d. Deutsch. wiss. Komm. f. Meeresf. N. F. 5. **1930 a**.

— Eine Fluktuation von Mactra (Spisula) subtruncata da Costa an der ostfriesischen Küste. Ber. d. Deutschen wiss. Komm. f. Meeresf. N. F. 5. **1930 b**.

Hørring, R.: Rapport om Fiskeriundersøgelser under Færøerne og Island i Sommeren 1901. Fiskeriberetning 1900—1901. Kbh. **1902**.

Jacobsen, I. P. & Jensen, A. J. C.: Examination of Hydrographical Measurements from the Research vessels "Explorer" and "Dana" during the summer of 1924. Rapp. et Proc.-Verb. des Reunions, 39. **1926**

Jespersen, P : On the Halibut in Icelandic waters. Rapp. et Proc.-Verb. des Reunions, 39. **1926**.

Johansen, A. C.: Om Aflejringen af Molluskernes Skaller i Indsøer og i Havet. Vid. Medd. fra Dansk Nat.-Hist. Forening 1901. **1902**.

Lindroth, A.: Die Assoziationen der marinen Weichböden. Zool. Bidr. f. Uppsala 15, **1935**.

Molander, A.: Animal communities on soft bottom areas in the Gullmar Fjord. Kristinebergs Zoologiske Station 1877—1927. Stkh. **1928**.

Mortensen, Th.: Echinoidea. The Danish Ingolf-Expedition vol. IV, 2. **1907**.

— Pighude. Danmarks Fauna 27. **1924**.

— Ophiuroidea. The Danish Ingolf-Expedition vol. IV, 8. **1933**.

Petersen, C. G. Joh.: Valuation of the Sea II. Rep. Dan. Biol. Stat. XXI. **1913**.

— Appendix to Rep. XXI. On the distribution of the animal communities on the sea bottom. Rep. Dan. Biol. Stat. XXII. **1914**.

— On the Animal Communities of the Sea Bottom in the Skagerrak, the Christiania Fjord and the Danish Waters. Rep. Dan. Biol. Stat. XXIII. **1915**.

Schmidt, Johs.: Fiskeriundersøgelser ved Island og Færøerne i Sommeren 1903. Skr. udg. af Komm. f. Havunders. Nr. 1. **1904**.

— Administrative report for 1925. Rapp. et Proc.-Verb. des Reunions, 39. **1926**.

Shelford, V. E.: Basic principles of the classification of communities and habitats and the use of terms. Ecol., vol. XIII, no. 2. **1932**.

Shelford, Weese, Rice, Rasmussen, MacLean, Wismer and Swanson: Some marine biotic communities of the pacific coast of North America. Ecol. Monogr. 5. **1935**.

Smith, J. E.: The shell-gravel deposits, and the infauna of Eddystone grounds. Journ. Mar. Biol. Ass. N. S. 18. **1932**.

Soot-Ryen, T.: Faunistische Untersuchungen im Ramfjorde. Tromsø Mus. Årshefter 45. Tromsø **1924**.

Spärck, R.: Preliminary survey of the results of quantitative bottom investigations in Iceland and Faroe waters 1926—1927. Rapp. et Proc.-Verb. des Reunions, 57. **1929**.

— On the Importance of Quantitative Investigations of the Bottom Fauna in Marine Biology. Journal du Conseil. Vol. X, no. 1. **1935**.

— Review of the Danish Investigations of the quantitative composition of the bottom fauna in Iceland and East-Greenland waters. Rapp. et Proc.-Verb. des Reunions, 99. **1936 a**.

— Ueber die zoogeographische Bedeutung der Petersenschen Tiergemeinschaften. Zoogeographica 3. **1936 b**.

— The Benthonic Animal Communities of the Coastal Waters. The Zoology of Iceland. Vol. I, part 6. **1937**.

Stephen, A. C.: Preliminary survey of the Scottish waters of the North Sea by the Petersen grab. Fish. Board Scotl. Sci. Invest., 1922. **1923**.

— Studies on the Scottish marine fauna: The natural faunistic divisions of the North Sea as shown by the quantitative distribution of the molluscs. Trans. R. Soc., Edinburgh 57. **1933**.

— Studies on the Scottish marine fauna: Quantitative distribution of the echinoderms and the natural faunistic divisions of the North Sea. Trans. R. Soc., Edinburgh 57. **1934**.

Sæmundsson, Bjarni: Bidrag til Kundskaben om Islands polychæte Børsteorme. Vid. Medd. fra Dansk Nat.-hist. Forening. Bd. 69. **1918**.

— Fiskarnir. Reykjavík **1926**.

— Fiskirannsóknir. Andvari **1929**.

Thomsen, H.: Hydrography of Icelandic Waters. The Zoology of Iceland. Vol. I, Part 4. **1938**.

Thoroddsen, Th.: Islandske Fjorde og Bugter. Geografisk Tidsskrift. Bd. 16. **1902**.

— Island. Petermanns Mitt. Ergänzungsheft 152, 153. **1905**, **1906**.

— Lýsing Íslands. I. **1908**.

Thorson, G.: Contributions to the animal ecology of the Scoresby Sound Fjord complex (East-Greenland). Medd. om Grønland. Bd. 100, Nr. 3. **1934**.

Thulin, G.: Bottenboniteringar i södra Østersjön i samband med fisktrålingar. Sv. Hydrogr. Biol. Komm. Skr. 6. Göteborg **1922**.

Dansk Resumé.

Materialet til foreliggende Afhandling er væsentlig samlet af Havundersøgelsesskibet "Dana" i Sommeren 1939. Endvidere omfatter Undersøgelsen Materiale samlet af "Dana" i Sommeren 1927 og det islandske Havundersøgelsesskib "Þór" i Vinteren 1938.

Alle Prøverne blev taget med PETERSENS store 0.2 m² Bundhenter. Disse blev konserveret i Alkohol om Bord, men sorteret og vejet efter Ankomsten til Danmark.

Undersøgelsen er en direkte Fortsættelse af de Boniteringsarbejder, som fra dansk Side er udført ved Island, og hvorom nogle Resultater er blevet publiceret af R. SPÄRCK. Dels var det ønskeligt nærmere at klarlægge Udstrækningen af de Dyresamfund, som var konstateret i Faxebugten, og dels at undersøge Bundfaunaen i Bugtens dybere Dele, hvor Bundprøver ikke var blevet taget tidligere. Til dette Formaal toges der Prøver paa tre Snit i Bugtens sydlige Del og en Række Stationer paa tre Snit i Bugtens dybere Del. Sammen med "Þór"s Prøver og "Dana"s Prøver fra 1927 dækker det foreliggende Materiale det meste af Bugten (Fig. 2).

De hydrografiske Data viser, at man kan skelne mellem Kystvand med Saltholdigheder under 35 ‰ og atlantisk Vand med Saltholdigheder over 35 ‰. Sædvanlig er Bugtens grunde Del, ud til 50 m Kurven, dækket af Kystvand, medens Dybder over 70 m har atlantisk Vand. Fig. 3 og 4 viser Variationen gennem Aaret i Bundtemperatur og Saltholdighed paa to faste hydrografiske Stationer i Faxebugten (Akranes og Skagi).

Bundforholdene. Bundartens Karakter blev paa hver Station noteret, og paa Grundlag af dette er Kortet Fig. 5 tegnet. En stor Del af det Omraade, som ligger Nord for Syðra Hraun og Vestra Hraun har haard Bund isprængt større eller mindre Omraader med Grus eller groft Sand. I den dybeste Del, Jökuldjúp, er Bundarten sört Mudder. Fra denne strækker sig et Omraade med blandet Bund paa Nord- og Østsiden af Hraun-Omraadet. Hraun-Omraadet er meget grundt og skærmer saaledes den sydlige Del af Bugten, hvor Bundarten er fint Sand, Ler eller blandet Bund.

Seks Dyresamfund er ved denne Undersøgelse blevet konstateret i Bugten. Deres Udstrækning er vist paa Fig. 6.

1. *Macoma calcarea* Samfundet. Særlig fundet paa Lerbund i Fjordene samt i den sydligste Del af Bugten. Af Tabel I ses, at dette Samfund navnlig er karakteriseret ved Muslingen *Macoma calcarea*. Det er Faxebugtens rigeste Samfund baade med Hensyn til Vægt, Artsantal og Individantal. Af hyppige Arter forekommende her kan nævnes Muslingerne: *Syndosmya nitida*, *Astarte montagui*, Børsteormene: *Terebellides strömi*, *Sternaspis scutata*, *Maldane sarsi*, *Clymene prætermissa*, *Nephthys ciliata* og *Lumbriconereis fragilis*. Rigdommen af Børsteorme og unge Muslinger gør dette Samfund særlig betydningsfuldt som Fødeproducent for Bundfiskene.

2. *Brissopsis lyrifera* Samfundet. Dette Samfund fandtes i Faxebugtens dybeste Del (Jökuldjúp). Dets Sammensætning ses af Tabel II. Kvantitativt spiller Søpindsvinet *Brissopsis lyrifera* den største Rolle, men med Hensyn til Arts- og Individantal er Børsteormene fremtrædende, særlig *Melinna cristata, Clymene prætermissa, Maldane sarsi, Sternaspis scutata* o. fl. Vægtmængderne er smaa sammenlignet med, hvad dette Samfund opviser i sydligere Farvande.

3. *Spisula elliptica* Samfundet. Der skelnes mellem det »fattige« *S. elliptica* Samfund, som har sin Udbredelse i det mere udsatte Hraun-Omraade, navnlig karakteriseret ved Muslingerne *Psammobia tellinella, Spisula elliptica* og Tobis (Tabel III), og det »rige« *S. elliptica* Samfund, som særlig kommer til Udvikling i Sandomraaderne Syd og Øst for Hraun-Omraadet. Som det vil ses af Tabel IV findes her foruden *S. elliptica* Muslingerne *Cyprina islandica, Syndosmya prismatica* og Børsteormene *Nephthys caeca* og *Owenia fusiformis* temmelig hyppigt. En Sammenligning af Antallet af *S. elliptica* i dette Omraade 1926, 1927 og 1939 viser, at Mængden varierer meget fra Aar til Aar (Teksttabel 8).

4. *Echinocardium flavescens* Samfundet. Dette Samfund fandtes paa blandet Bund Nord for Hraun-Omraadet paa Dybder mellem 85 og 130 m og kan sidestilles med Petersens dybere Venus-Samfund. Af karakteristiske Arter kan nævnes Søpindsvinet *Echinocardium flavescens,* Slangestjernen *Amphiura filiformis,* Muslingerne *Syndosmya prismatica, Cyprina islandica, Nucula tenuis* og Søtanden *Dentalium entalis* (Tabel V).

5. *Mytilus edulis* Paafauna (Epifauna). Dette Samfund findes hovedsagelig i Tidevandszonen; ingen Prøver er taget herfra, da nærværende Undersøgelse hovedsagelig er udført i de mere aabne Dele af Bugten.

6. *Modiola modiolus* Paafauna. Der bliver skelnet mellem *Modiola-Potamilla* Epifaunaen, som særlig er udbredt i de rolige Farvande indenfor Hraun-Omraadet og Klippeepifaunaen, som trives paa de mere udsatte Steder. Den første er, som det vil ses af Tabel VI, karakteriseret ved Muslingen *Modiola modiolus* og den i Rør boende Børsteorm *Potamilla reniformis,* som findes her i enormt Antal. Af andre Dyr, som hyppigt træffes her, kan nævnes Slangestjernen *Ophiopholis aculeata,* Søpindsvinet *Strongylocentrotus droebachiensis,* Muslingen *Astarte elliptica,* Sneglene *Lepeta coeca* og *Trochus tumidus,* Krebsdyrene Eremitkrebs og *Hyas coarctatus* og Børsteormene *Nephthys ciliata* og *Terebellides strömi.* Klippefaunaen har derimod, foruden Muslingen *Modiola modiolus,* Arter af Rurer som *Balanus balanus* og *Verruca strömia,* Muslingen *Saxicava arctica,* Børsteormen *Pomatoceros triqueter* samt Søpunge, bl. a. *Amaroucium* sp. og *Diademna albidum* (Teksttabel 11).

I en Række Teksttabeller (4, 5, 6 og 10) gengives Analyser af Maveindhold hos Rødspætte og Kuller udført om Bord paa "Dana" paa to Trawlstationer i Faxebugten, henholdsvis territorialt og extraterritorialt. Det vises, at paa Territorialstationen spiller *Macoma*-Samfundets Rigdom af Børsteorme og unge Muslinger en stor Rolle som Føde, medens Tobis er dominerende paa Extraterritorialstationen, sammen med Muslinger som *Spisula elliptica, Syndosmya prismatica* og unge *Cyprina islandica.*

I Diagrammet Fig. 7 vises Dyresamfundenes kvantitative Forhold. Punkterne betegner Dyresamfundenes totale Middelvægt pr. 0.2 m^2, medens Søjlerne over den vandrette Linie betegner Middelvægten af henholdsvis Pighude (Echinodermer), Muslinger (Lamellibranchiater) og Børsteorme (Polychæter). Søjlerne nedenfor den vandrette Linie betegner de samme Dyregruppers Vægtprocent og giver samtidig Oplysning om enkelte dominerende Arters procentvise Betydning. Muslingerne, særlig *Macoma calcarea, Modiola modiolus* og *Cyprina islandica,* udgør det meste af Vægten i Dyresamfundene indenfor Hraun-Omraadet (*Macoma-, Modiola-* og *Spi-*

sula-Samfundene), medens Pighude og Børsteorme spiller en tiltagende Rolle i de dybere Samfund (*Brissopsis*- og *Echinocardium*-Samfundene).

Relationerne mellem Faxebugtens Dyresamfund og boreale Dyresamfund undersøgt af andre Forskere diskuteres, og C. G. Joh. Petersens Hypothese om Rækkefølgen af Dyresamfundene i det nordlige Atlanterhav findes bekræftet.

En Oversigt over de i Bundprøverne fundne Arter af Børsteorme, Bløddyr og Pighude gives i IV. Afsnit, sammen med Stedsangivelser og Bemærkninger om Bundforhold paa Findestederne. I Fig. 8—18, Side 34—35, vises nogle karakteristiske Udbredelsestyper, som viser sig at være afhængig af Bund- og Dybdeforhold.

Følgende Arter af Børsteorme er hidtil ikke kendt ved Island: *Harmothoe longisetis, Polynoe scolopendrina, Polynoe kinbergi, Syllis cornuta, Ceratocephale loveni, Nephthys hombergi, Nephthys incisa, Nephthys paradoxa, Glycera rouxii, Laonice cirrata, Spiophanes kröyeri, Spiophanes bombyx, Disoma multisetosum, Spiochætopterus typicus, Diplocirrus glaucus, Pectinaria auricoma, Lysilla loveni, Proclea graffii, Amœa trilobata, Fabricia sabella* og *Myxicola infundibulum.*

Endvidere er fundet 3 Pighude, der er nye for Island, nemlig *Solaster glacialis, Ophiura texturata* og *Echinocyamus pusillus.*

500 — 13. 3. 1941

Table I. The *Macoma calcarea* community.

Station	Da 6130 21-7-39		Da 6131 22-7-39		Da 6149 27-7-39		Da 6151 28-7-39		Da 6153 28-7-39		Da 3135 28-7-27		Average number and normal-weight pr. 1/8 sq. m.			
Depth	37 m.		33 m.		35 m.		45 m.		48 m.		39 m.		Number		Normalwgh.	
Position	64°03′5″ N 22°30′ W		64°02′ N 22°28′ W		64°02′5″ N 22°31′3″ W		64°03′8″ N 22°10′ W		64°07′8″ N 22°12′6″ W		64°02′ N 22°17′ W					
Area	1 × 0.2 m.²		1 × 0.2 m.²		1 × 0.2 m.²		1 × 0.2 m.²		1 × 0.2 m.²		1 × 0.2 m.²					
Name of species	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Predominating species	Total for animal groups	Predominating species	Total for animal groups
Nucula tenuis	..	..	..	..	..	..	1	0.05	1	0.05	..	..	..	..	..	..
Leda pernula	1	0.10	..	..	2	0.55	..	..	..	..	1	0.60	..	..	..	..
Modiola modiolus	2	56.50	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Astarte montagui	36	12.85	3	2.30	4	4.10	..	..	..	..	..	..	7.2	..	3.5	..
— borealis	1	10.55	1	7.70	..	..	..	..	..	..	..	..	..	..	..	..
— elliptica	1	3.80	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thyasira flexuosa	2	0.10	..	..	..	..	1	0.10	..	..	1	0.10	..	..	..	..
Montacuta ferruginosa	1	0.05	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..
Cardium echinatum	3	31.70	1	24.60	1	2.90	..	..	..	..	..	..	0.8	..	10.9	..
— ciliatum	..	..	2	0.30	2	15.70	..	..	..	..	..	..	..	..	..	..
— fasciatum	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..
Cyprina islandica	..	..	..	..	..	..	1	143.00	11	259.25	6	74.60	3.0	..	87.4	..
Macoma calcarea	17	47.20	32	76.60	28	80.50	1	1.35	7	10.40	3	5.10	14.7	..	40.5	..
Syndosmya nitida	4	0.10	..	..	1	0.10	1	0.05	11	0.30	..	..	2.8	..	0.1	..
Thracia truncata	1	1.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Spisula solida var. ell. juv.	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Mya truncata juv.	5	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	33.3	..	160.3
Lunatia pallida	1	0.10	..	..	..	..	..	..	1	0.40	..	..	..	..	..	..
Chiton cinereus	..	..	..	..	2	0.15	..	..	..	..	..	..	..	..	..	..
Chætoderma nitidulum	3	0.10	2	0.10	..	..	7	0.50	4	0.15	1	0.10	2.8	..	0.2	..
Dentalium entalis	..	..	..	..	1	0.50	2	1.45	2	0.30	1	0.80	1.0	..	0.6	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	4.5	..	0.9
Gattyana cirrosa	1	0.10	..	..	2	0.30	..	..	..	..	..	..	..	..	..	..
Harmothoe imbricata	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..
— longisetis	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Polynoe kinbergi	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..
Sthenelais filamentosus	..	..	..	..	..	..	..	..	2	0.25	..	..	..	..	..	..
Nephthys ciliata	..	..	5	4.30	2	0.50	3	1.15	..	..	5	2.50	2.5	..	1.6	..
— caeca	4	0.20	..	..	..	..	..	..	4	0.90	..	..	..	..	..	..
— paradoxa	..	..	..	..	3	1.85	..	..	1	1.00	..	..	..	..	..	..
Goniada maculata	..	..	..	..	..	..	1	0.15	2	0.10	1	0.15	..	..	..	..
Lumbriconereis fragilis	1	0.30	4	0.15	4	0.20	2	0.10	..	..	..	..	1.8	..	0.1	..
Scoloplos armiger	6	0.30	..	..	..	..	2	0.10	7	0.15	..	..	2.5	..	0.1	..
Laonice cirrata	13	2.00	..	..	1	0.15	3	0.45	2	0.15	2	0.15	3.5	..	0.5	..
Spio filicornis	..	..	1	0.05	..	..	1	0.05	..	..	..	..	..	..	..	..
Spiophanes kröyeri	..	..	..	..	..	..	4	0.20	2	0.10	..	..	..	..	..	..
Eteone longa	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Chætozone setosa	7	0.15	1	0.05	2	0.10	2	0.10	1	0.05	..	..	2.2	..	0.1	..
Cirratulus cirratus	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Notomastus latericeus	..	..	1	0.05	..	..	1	0.40	..	..	..	..	..	..	..	..
Clymene prætermissa	6	0.50	1	0.05	1	0.05	7	0.40	5	0.20	6	0.30	4.3	..	0.3	..
— gracilis	..	..	..	..	..	..	..	..	2	0.30	1	0.15	..	..	..	..
Rhodine gracilior	..	..	2	0.10	3	0.20	7	0.40	4	0.20	..	..	2.7	..	0.2	..
Maldane sarsi	1	0.10	21	1.00	14	0.75	80	2.00	9	0.20	11	0.40	22.8	..	0.8	..
Nicomache lumbricalis	..	..	..	..	1	0.15	..	..	..	..	..	..	..	..	..	..
Sternaspis scutata	1	0.20	4	0.45	1	0.15	2	0.35	9	0.45	1	0.20	3.0	..	0.3	..
Owenia fusiformis	..	..	..	..	..	..	..	..	2	0.05	..	..	..	..	..	..
Diplocirrus glaucus	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..
Brada villosa	2	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lysilla loveni	..	..	..	..	1	0.15	..	..	..	..	..	..	..	..	..	..
Pectinaria koreni	2	0.20	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..
Ampharete grubei	2	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Melinna cristata	..	..	..	..	..	..	2	0.15	..	..	..	..	..	..	..	..
Amphitrite cirrata	..	..	1	0.10	5	2.20	..	..	..	..	..	..	1.0	..	0.4	..
Terebellides strömi	1	0.10	26	1.60	25	1.45	15	1.30	3	0.25	..	..	11.7	..	0.9	..
Myxicola infundibulum	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pomatoceros triqueter	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	67.0	..	6.7
Phascolion strombi	1	0.05	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..
Echiurus echiurus	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..
Nemertini	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	0.6	..	0.1
Amphiura filiformis	5	0.40	5	0.60	2	0.15	..	..	1	0.15	..	..	2.1	..	0.2	..
Ophiura albida	3	0.10	2	0.10	..	..	..	..	..	..	..	..	..	..	..	..
— affinis	..	..	..	..	1	0.05	1	0.05	..	..	..	..	..	..	..	..
Amphipholis squamata	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Echinocardium flavescens	6	48.20	..	..	..	..	1	5.10	2	10.50	3	0.70	2.0	..	11.8	..
Psolus phantapus	..	..	..	..	..	..	..	..	1	34.00	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	5.7	..	18.4
Edwardsiidæ	11	0.75	..	..	..	..	4	0.50	1	0.10	..	..	..	..	..	..
Alcyonium digitatum	..	..	..	..	2	15.20	..	..	..	..	..	..	..	..	..	..
Eupagurus sp.	5	0.70	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphipoda	2	0.05	2	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Other Crustacea	2	0.05	1	0.05	1	0.05	..	..	..	..	3	0.20	..	..	..	..
Hydroida	..	..	..	..	—	1.60	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	5.7	..	3.5
Total number and alcohol weight	164	219.25	122	120.60	116	130.2	153	159.55	100	320.20	46	86.05	..	116.8	..	..
"Normal-weight"	..	241.18	..	132.66	..	143.2	..	175.51	..	352.22	..	94.67	..	..	..	189.9

Table II. The *Brissopsis lyrifera* community.

Station	Da 6168 28-7-39		Da 6169 28-7-39		Da 6170 28-7-39		Da 6171 28-7-39		Da 6180 29-7-39		Da 6181 29-7-39		Da 6182 29-7-39		Þór 16 15-12-38		Þór 17 15-12-38		Average number and normal-weight pr. 1/8 sq.m.			
Depth	128 m.		149 m.		158 m.		155 m.		154 m.		162 m.		165 m.		146 m.		124 m.		Number		Normal-weight	
Position	64°32′ N 23°13′ W		64°32′ N 23°24′ W		64°29′5″N 23°19′5″W		64°27′ N 23°15′ W		64°28′ N 23°19′ W		64°29′ N 23°26′ W		64°30′5″ N 23°33′ W		64°28′5″ N 23°16′2″W		64°29′7″ N 23°08′ W					
Area	1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²					
Name of species	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Predominating species	Total for animal groups	Predominating species	Total for animal groups
Syndosmya nitida	5	0.25	1	0.25	2	0.30	1	0.05	1	0.15	..	..	..	..	4	0.30	2	0.15	1.8	..	0.18	..
Thyasira flexuosa	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Montacuta ferruginosa	1	0.05	..	..	..	..	..	..	..	..	..	..	1	0.05	..	..	1	0.05	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2.2	..	0.20
Harmothoe longisetis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..
Phyllodoce maculata	1	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nephthys ciliata	..	..	2	1.80	..	..	..	..	..	..	2	1.60	..	..	..	..	..	..	..	..	..	..
— incisa	..	..	..	..	..	..	1	0.20	..	..	..	..	..	..	..	..	..	..	..	..	..	..
— paradoxa	..	..	..	..	..	..	1	0.70	1	0.30	..	..	..	..	..	..	..	..	..	..	..	..
Glycera rouxii	1	0.50	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..
Lumbriconereis fragilis	2	0.50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ceratocephale loveni	1	0.10	2	0.15	1	0.10	2	0.20	1	0.10	..	..	2	0.20	..	..	..	..	1.0	..	0.10	..
Spiochætopterus typicus	..	..	..	..	..	..	..	..	1	0.25	..	..	..	..	..	..	..	..	..	..	..	..
Disoma multisetosum	..	..	..	..	2	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diplocirrus glaucus	..	..	..	..	1	0.05	..	..	1	0.05	..	..	1	0.05	..	..	6	0.20	1.0	..	0.04	..
Notomastus latericeus	1	0.15	2	0.20	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..
Sternaspis scutata	1	0.10	3	0.20	4	0.25	2	0.15	5	0.45	..	..	4	0.30	1	0.10	1	0.20	2.3	..	0.21	..
Rhodine gracilior	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clymene prætermissa	9	0.30	3	0.20	3	0.15	6	0.25	3	0.20	..	..	..	..	2	0.15	2	0.15	3.1	..	0.18	..
— sp.	..	..	..	..	..	..	..	..	..	..	..	..	1	0.15	..	..	..	..	..	..	..	..
Maldane sarsi	4	0.15	..	..	..	..	1	0.05	1	0.05	..	..	..	..	2	0.10	6	0.20	1.6	..	0.06	..
Pectinaria auricoma	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..
Ampharete grubei	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphicteis gunneri	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Anabothrus gracilis	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	2	0.15	..	..	..	..	..	..
Melinna cristata	10	0.50	11	1.00	7	0.50	6	0.25	10	0.40	3	0.15	12	0.80	..	..	3	0.20	6.9	..	0.46	..
Laphania boecki	..	..	..	..	..	..	2	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Terebellides strömi	2	0.15	..	..	..	..	..	..	..	..	..	..	..	..	1	0.05	2	0.30	..	..	..	..
Ditrupa arietina	2	0.10	..	..	..	..	..	..	10	0.20	..	..	..	..	..	..	2	0.05	1.5	..	0.04	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	21.3	..	2.10
Brissopsis lyrifera	1	8.50	2	9.00	..	..	..	..	..	..	..	..	1	3.20	..	..	3	19.00	0.8	..	4.80	..
Amphiura filiformis	1	0.20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophiura albida	..	..	..	..	..	..	..	..	1	0.55	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1.0	..	4.94
Virgularia mirabilis	3	0.70	..	..	1	0.15	..	..	..	..	..	..	2	0.20	..	..	1	0.50	0.8	..	0.19	..
Phascolion strombi	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	1	0.05	4	0.20	..	..	..	..
Chætoderma nitidulum	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphipoda	..	..	2	0.10	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1.9	..	0.26
Total number and alcohol weight	47	12.60	30	13.00	22	1.75	22	1.95	38	2.95	5	1.75	25	5.05	15	1.10	34	21.25	..	26.4	..	..
"Normal-weight"	..	13.9	..	14.3	..	1.9	..	2.1	..	3.2	..	1.9	..	5.6	..	1.2	..	23.4	..	..	..	7.50

Table III. The "poor" *Spisula elliptica* community.

Station	Da 6122 21-7-39		Da 6125 21-7-39		Da 6126 21-7-39		Da 6132 22-7-39		Da 6133 22-7-39		Da 6155 28-7-39		Da 6159 28-7-39		Da 6160 28-7-39		Da 3194 5-8-27		Da 3205 6-8-27		Average number and normal-weight pr. 1/5 sq.m.			
Depth	50 m.		42 m.		39 m.		65 m.		55 m.		29 m.		46 m.		45 m.		35 m.		71 m.		Number		Normal-weight	
Position	64°16′5″N 22°53′ W		64°11′5″N 22°44′5″W		64°10′ N 22°42′ W		64°21′ N 22°37′ W		64°19′5″N 22°33′5″W		64°11′5″N 22°19′2″W		64°16′ N 22°31′ W		64°17′ N 22°35 W		64°17′7″N 22°36′5″W		64°38′5″N 23°00′ W					
Area	1×0.2m.²		1×0.2m.²		1×0.2m.²		1×0.2m.²		1×0.2m.²		1×0.2m.²		1×0.2m.²		1×0.2m.²		1×0.2m.²		1×0.2m.²					
Name of species	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Predominating species	Total for animal groups	Predominating species	Total for animal groups
Astarte borealis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2.20	..	..	..	..	..	..	..	..
Cardium fasciatum	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Macoma calcarea juv.	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Spisula solida var. ell.	..	..	..	..	..	..	..	..	..	..	..	..	1	0.60	1	1.70	1	1.70	1	0.80	0.4	..	0.50	..
Psammobia tellinella	1	2.10	..	..	..	..	..	..	..	..	..	..	2	0.30	..	..	4	7.20	..	..	0.7	..	1.00	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1.4	..	1.8
Amauropsis islandica	..	..	..	..	..	..	..	..	..	..	..	..	1	1.80	..	..	..	..	..	..	..	..	..	..
Lunatia pulchella	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..
Chætoderma nitidulum	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0.3	..	0.2
Sthenelais filamentosus	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nephthys caeca	..	..	..	..	..	..	1	0.30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Glycera capitata	5	1.00	2	0.30	2	0.15	..	..	1	0.15	2	0.15	..	..	..	..	..	..	1	0.10	1.3	..	0.20	..
Eunice pennata	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.30	..	..	..	..
Onuphis conchylega	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	0.15	..	..	..	..
Scoloplos armiger	2	0.20	3	0.50	..	..	1	0.05	..	..	1	0.05	..	..	..	..	..	..	..	..	0.7	..	0.09	..
Notomastus latericeus	7	0.90	1	0.10	1	0.10	..	..	1	0.05	4	0.25	4	0.30	..	..	..	..	2	0.20	2.0	..	0.21	..
Polycirrus medusa	..	..	..	..	3	0.15	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4.9	..	0.6
Asterias rubens	..	..	..	..	..	..	..	..	1	22.00	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphipholis squamata	5	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophiura robusta	3	0.10	2	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
— albida var. tub.	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Echinod. indet.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2.00	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1.3	..	2.7
Edwardsiidæ	..	..	..	..	..	..	..	..	..	..	1	0.20	..	..	..	..	..	..	..	..	..	..	..	..
Phascolion strombi	..	..	..	..	..	..	..	..	1	0.10	1	0.15	8	0.75	..	..	..	..	..	..	1.0	..	0.11	..
Nemertini	2	0.20	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..
Nematoda	20	0.80	12	0.50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3.2	..	0.14	..
Ascidia	..	..	..	..	..	..	..	..	..	..	..	..	3	0.15	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4.9	..	0.3
Ammodytes sp.	..	..	..	..	..	..	..	..	..	..	6	19.20	10	8.60	20	16.10	6	14.60	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4.2	..	6.4
Total number and alcohol weight	45	5.40	20	1.45	7	0.45	6	0.55	4	22.25	17	20.20	30	12.60	22	20.00	11	23.50	8	3.55	..	17.0	..	..
"Normal-weight"	..	5.9	..	1.6	..	0.5	..	0.6	..	24.5	..	22.2	..	13.8	..	22.0	..	25.9	..	3.9	..	..	..	12.0

Table IV. The "rich" *Spisula elliptica* community.

Station	Da 6128 21-7-39		Da 6134 22-7-39		Da 6135 22-7-39		Da 6136 22-7-39		Da 6137 22-7-39		Da 6138 22-7-39		Da 6140 22-7-39		Da 6148 26-7-39		Da 6154 28-7-39		Da 6175 28-7-39		Da 3142 28-7-27	
Depth	36 m.		46 m.		43 m.		37 m.		53 m.		43 m.		43 m.		30 m.		36 m.		78 m.		34 m.	
Position	64°07′ N 22°36′ W		64°18′5″N 22°29′5″W		64°16′5″N 22°26′ W		64°16′ N 22°22′ W		64°15′ N 22°19′5″ W		64°14′ N 22°14′5″W		64°12′7″ N 22°10′5″ W		64°09′5″N 22°23′5″W		64°10′ N 22°15′8″W		64°13′8″N 22°55′ W		64°04′3″N 22°32′ W	
Area	1×0.2 m.²		1×0.2 m.²		2×0.2 m.²		2×0.2 m.²		2×0.2 m.²		2×0.2 m.²		1×0.2 m.²		1×0.2 m.²		2×0.2 m.²		1×0.2 m.²		1×0.2 m.²	
Name of species	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.
Nucula tenuis	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Astarte montagui	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.55	..	..	..	..	..	..
— borealis	..	..	1	1.55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cardium fasciatum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	0.15	..	..	..	..	..	..
Cyprina islandica	3	194.80	..	..	..	..	1	0.05	1	59.50	..	..	11	526.50	..	..	2	1.40	..	..	6	4.30
Venus ovata	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	0.35	..	..	..	..	..	..
Macoma calcarea juv.	..	..	..	..	..	..	..	..	2	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Syndosmya prismatica	2	0.10	..	..	1	0.35	..	..	14	0.40	..	..	..	..	..	..	11	0.45	2	0.40	..	..
Psammobia tellinella	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Spisula solida var. ell.	3	1.10	8	1.70	1	0.05	3	1.30	..	..	6	3.30	..	..	4	1.10	..	..	1	0.80	3	1.00
Mya truncata juv.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amauropsis islandica	3	0.30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1.60
Lunatia pulchella	1	0.50	..	..	..	..	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..
— montagui	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Buccinum undatum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.70	..	..	..	..	..	..
Cylichna sp.	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Harmothoe longisetis	..	..	..	..	..	..	..	..	3	0.15	..	..	..	..	..	..	..	..	..	..	..	..
Sthenelais filamentosus	..	..	..	..	..	..	..	..	1	0.15	..	..	..	..	..	..	1	0.10	..	..	..	..
Nephthys caeca	..	..	..	..	4	0.40	..	..	3	0.80	..	..	2	0.50	..	..	3	0.40	..	..	..	..
— longosetosa	..	..	..	..	..	..	1	0.10	..	..	1	0.30	..	..	..	..	..	..	..	..	..	..
— hombergi	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Glycera capitata	2	0.15	..	..	..	..	4	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Goniada maculata	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..
Onuphis conchylega	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	0.20
Scoloplos armiger	..	..	..	..	1	0.05	1	0.05	3	0.10	..	..	..	..	2	0.05	7	0.15	..	..	..	..
Spiophanes kröyeri	..	..	..	..	..	..	4	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
— bombyx	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	0.10	..	..	..	..
Notomastus latericeus	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..
Clymene prætermissa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..
Owenia fusiformis	..	..	..	..	..	..	3	0.15	..	..	..	..	..	..	..	..	18	0.75	..	..	..	..
Pectinaria koreni	..	..	..	..	..	..	..	..	15	0.10	..	..	..	..	..	..	5	0.15	..	..	..	..
Lanice conchylega	..	..	..	..	..	..	4	0.50	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Potamilla reniformis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.15	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphipholis squamata	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	7	0.20	..	..	..	..	..	..
Ophiura albida	1	0.05	..	..	1	0.25	..	..	2	0.20	..	..	..	..	..	..	1	0.05	..	..	..	..
— affinis	..	..	..	..	..	..	1	0.10	2	0.10	..	..	..	..	..	..	..	..	..	..	..	..
Echinocardium flavescens juv.	..	..	..	..	3	1.10	1	0.80	4	45.40	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phascolion strombi	15	1.40	1	0.10	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	1	0.10	..	..
Hyas coarctatus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.30	..	..	..	..	..	..
Amphipoda	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Nematoda	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bryozoa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ascidia	2	0.35	..	..	..	..	..	..	..	..	..	..	..	..	4	0.40	..	..	4	0.50	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ammodytes sp.	7	28.00	..	..	..	..	..	..	..	..	1	0.40	1	0.45	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total number and alcohol weight...	41	226.90	10	3.35	11	2.20	24	3.35	53	107.10	8	4.00	14	527.45	31	4.20	52	3.55	10	2.00	14	7.10
"Normal-weight"	..	249 6	..	3.7	..	.4	..	3.7	..	117.8	..	4.4	..	580.2	..	4.62	..	3.9	..	2.2	..	7.9

Da 3143 28-7-27		Da 3147 28-7-39		Da 3195 5-8-27		Average number and normal-weight pr. $^1/_5$ sq.m.			
41 m.		41 m.		72 m.		Number		Normal-weight	
64°05′3″N 22°34′ W		64°08′ N 22°21′ W		64°21′ N 22°32 W					
1×0.2 m.²		1×0.2 m.²		1×0.2 m.²					
Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Predominating species	Total for animal groups	Predominating species	Total for animal groups
..	..	..	..	2	0.10	..	..	..	..
1	0.10	3	2.20	1	0.40	0.3	..	0.19	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..		..	..
..	..	2	8.70	..	..	1.4	..	46.0	..
..	..	1	0.60	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	6	0.60	1.9	..	0.13	..
3	0.20	..	..	..	..	..	..	..	..
..	..	..	..	1	0.70	1.6	..	0.64	..
..	..	..	..	1	0.40	..	..	..	..
..	..	..	..	..	..	..	6.0	..	47.2
1	0.90	..	..	..	..	0.3	..	0.16	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	3	0.50	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	0.7	..	0.3
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	0.6	..	0.12	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	1	0.40	..	..	..	..
1	0.15	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
1	0.10	..	..	..	..	..	..	..	..
..	..	..	..	1	0.05	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	1	0.10	1	0.05	1.2	..	0.06	..
..	..	..	..	..	..	..	..	..	..
1	0.10	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	5.7	..	0.4
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	1.3	..	2.8
..	..	..	..	..	..	1.0	..	0.10	..
..	..	..	..	..	..	..	..	..	..
4	0.10	1	0.10	1	0.10	..	..	..	..
3	0.10	..	..	..	..	..	..	..	..
—	0.10	..	..	..	..	..	..	..	..
4	1.60	..	..	..	..	0.7	..	0.16	..
..	..	..	..	..	..	..	2.3	..	0.3
..	..	..	..	..	..	..	..	..	..
..	..	..	..	..	..	..	0.5	..	1.7
19	3.45	8	11.70	18	3.30	..	16.5	..	..
..	3.8	..	12.9	..	3.6	..	..	..	52.7

Table V. The *Echinocardium flavescens* community.

Station	Da 6164 28-7-39		Da 6165 28-7-39		Da 6167 28-7-39		Da 6172 28-7-39		Da 6173 28-7-39		Da 6178 29-7-39		Da 6179 29-7-39		Da 3199 5-8-27		Da 3200 5-8-27		Da 3201 6-8-27		Average number and normal-weight pr. 1/5 sq.m.			
Depth	87 m.		110 m.		113 m.		125 m.		106 m.		122 m.		136 m.		89 m.		121 m.		145 m.		Number		Normal-weight	
Position	64°24′ N 22°52′ W		64°26′ N 22°57′ W		64°30′ N 23°08′ W		64°25′ N 23°10′ W		64°23′ N 23°04′5″W		64°25′3″ N 23°05′ W		64°26′5″ N 23°11′5″W		64°25′2″ N 22°50′5″W		64°25′3″ N 23°05′ W		64°25′7″ N 23°13′5″W					
Area	2×0.2 m.²		2×0.2 m.²		2×0.2 m.²		2×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²					
Name of species	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Predominating species	Total for animal groups	Predominating species	Total for animal groups
Nucula tenuis	..	..	..	..	1	0.05	1	0.05	..	..	3	0.20	..	..	..	..	..	..	..	..	..	..	..	..
Modiolaria nigra	..	..	1	1.20	..	..	..	..	1	0.70	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thyasira flexuosa	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cyprina islandica	3	67.30	1	4.15	1	0.05	2	99.80	..	..	..	..	1	30.10	..	..	..	..	..	..	0.6	..	15.9	..
Venus ovata	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Macoma calcarea	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1.70	..	..	..	..
Syndosmya prismatica	10	0.60	..	..	1	0.30	2	0.20	..	..	..	..	..	..	1	0.10	1	0.10	..	..	1.1	..	0.1	..
— nitida	..	..	..	..	1	0.05	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Spisula solida var. ell.	..	..	..	..	..	..	..	..	1	1.60	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2.5	..	16.4
Chiton cinereus	..	..	3	0.15	4	0.30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chætoderma nitidulum	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dentalium entalis	1	1.00	1	0.60	..	..	4	1.00	1	0.60	..	..	..	..	4	2.40	4	2.50	1	0.10	1.1	..	0.6	..
Lunatia montagui	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..
Neptunea despecta	..	..	..	..	..	..	..	..	..	..	..	..	1	3.60	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1.9	..	1.0
Aphrodite aculeata	..	..	..	..	1	7.60	..	..	..	..	..	..	1	0.75	..	..	2	0.25	..	..	..	..	..	..
Gattyana cirrosa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Polynoe scolopendrina	..	..	..	..	1	0.25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Sthenelais filamentosus	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	1	0.15	..	..	..	..	..	..	..	..
Nephthys ciliata	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	2.60	2	0.40	..	..	..	..
— caeca	2	0.10	1	1.70	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
— paradoxa	..	..	..	..	..	..	..	..	..	..	..	..	1	0.80	..	..	..	..	..	..	..	..	..	..
Goniada maculata	2	0.05	2	0.10	..	..	1	0.10	1	0.10	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..
Glycera rouxii	..	..	1	0.15	1	0.10	..	..	..	..	1	0.10	1	0.10	..	..	..	..	..	..	..	..	..	..
— capitata	..	..	1	0.05	1	0.05	..	..	1	0.10	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Lumbriconereis fragilis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	0.30	..	..	..	..	..	..
Onuphis conchylega	..	..	8	0.40	..	..	..	..	2	0.10	..	..	..	..	..	..	..	..	..	..	0.7	..	0.04	..
Eunice pennata	..	..	..	..	2	0.65	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Scoloplos armiger	1	0.05	1	0.05	..	..	3	0.15	1	0.05	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..
Spiophanes kröyeri	..	..	..	..	..	..	1	0.10	..	..	3	0.10	5	0.40	..	..	..	..	..	..	..	..	..	..
Polydora ciliata	..	..	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Disoma multisetosum	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..
Chætozone setosa	..	..	..	..	..	..	1	0.05	..	..	..	..	2	0.10	..	..	..	..	..	..	..	..	..	..
Stylarioides plumosa	..	..	..	..	1	0.20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diplocirrus glaucus	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	0.15	..	..	..	..	..	..
Notomastus latericeus	..	..	..	..	5	0.20	..	..	1	0.10	11	0.35	4	1.60	..	..	..	..	..	..	1.5	..	0.18	..
Clymene prætermissa	..	..	..	..	..	..	1	0.10	..	..	2	0.05	..	..	..	..	10	0.50	11	0.30	1.7	..	0.07	..
— gracilis	..	..	..	..	..	..	..	..	..	..	..	..	1	0.15	..	..	..	..	1	0.20	..	..	..	..
Asychis biceps	..	..	..	..	..	..	..	..	..	..	..	..	25	3.50	..	..	..	..	..	..	1.8	..	0.28	..
Maldane sarsi	..	..	..	..	..	..	3	0.20	..	..	..	..	67	1.35	..	..	6	0.15	1	0.05	5.5	..	0.14	..
Sternaspis fossor	..	..	1	0.30	..	..	..	..	..	..	2	0.45	..	..	..	..	1	0.20	5	0.70	0.6	..	0.13	..
Pectinaria auricoma	..	..	..	..	..	..	..	..	..	..	1	0.10	1	0.10	..	..	..	..	..	..	..	..	..	..
— granulata	..	..	1	0.20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphicteis gunneri	..	..	..	..	2	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Anabothrus gracilis	1	0.05	..	..	5	0.15	..	..	..	..	15	0.20	14	0.55	..	..	..	..	..	..	2.5	..	0.07	..
Melinna cristata	..	..	..	..	..	..	..	..	..	..	..	..	14	0.80	..	..	20	1.50	36	3.40	5.0	..	0.45	..
Lanice conchylega	2	1.00	..	..	..	..	..	..	..	..	1	0.50	..	..	..	..	..	..	..	..	..	..	..	..
Laphania boecki	..	..	..	..	..	..	1	0.05	..	..	2	0.10	..	..	..	..	6	0.15	2	0.05	0.8	..	0.03	..
Thelepus cincinnatus	..	..	1	1.70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Polycirrus medusa	..	..	..	..	..	..	..	..	2	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Terebellides strömi	..	..	..	..	..	..	..	..	..	..	4	0.20	8	0.75	..	..	2	0.40	..	..	0.8	..	0.07	..
Potamilla reniformis	..	..	..	..	2	0.30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Euchone analis	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ditrupa arietina	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..
Polych. indet.	1	0.05	..	..	..	..	..	..	..	..	1	0.20	1	0.20	..	..	..	..	2	0.20	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	27.2	..	3.4
Asterias rubens	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2.20	..	..	..	..	..	..	..	..
Amphipholis squamata	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphiura filiformis	..	..	..	..	..	..	2	0.40	..	..	1	0.30	3	0.20	..	..	6	0.80	..	..	0.9	..	0.14	..
Ophiura albida var. tub.	1	0.05	5	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
— affinis	1	0.05	2	0.15	..	..	..	..	2	0.15	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..
— texturata	..	..	..	..	..	..	..	..	..	..	1	3.20	..	..	..	..	..	..	..	..	..	..	..	..
Echinocyamus pusillus	..	..	1	0.40	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Echinocardium flavescens	2	10.60	8	16.50	1	3.00	2	3.30	..	..	3	10.50	..	..	13	2.90	6	11.30	2	0.30	2.6	..	4.58	..
Spatangus purpureus	..	..	1	5.25	..	..	..	..	3	38.20	..	..	..	..	..	..	..	..	..	..	0.3	..	3.40	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4.9	..	8.6
Phascolion strombi	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	1	0.20	1	0.15	1	0.30	..	..	..	..
Virgularia mirabilis	..	..	..	..	..	..	..	..	..	..	1	0.20	..	..	..	..	..	..	..	..	..	..	..	..
Edwardsiidae	1	0.05	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Hydroida	..	..	..	..	..	..	..	..	..	..	1	0.05	..	..	..	1.10	..	..	..	..	..	..	..	..
Nemertini	..	..	..	..	..	..	..	..	..	..	2	0.30	..	..	1	0.10	..	..	..	..	..	..	..	..
Amphipoda	..	..	2	0.15	2	0.05	..	..	1	0.10	1	0.05	..	..	..	..	1	0.10	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1.3	..	0.2
Total number and alcohol weight	29	81.00	42	33.35	35	13.65	27	106.70	20	42.25	59	17.30	152	44.45	24	9.05	76	21.20	66	7.80	..	37.8	..	..
"Normal-weight"	..	89.1	..	36.6	..	15.0	..	117.4	..	46.5	..	19.0	..	48.9	..	10.0	..	23.3	..	8.6	..	..	..	29.6

Table VI. The *Modiola-Potamilla* epifauna.

Station	Da 6141 22-7-39		Da 6142 22-7-39		Da 6143 26-7-39		Da 6150A 27-7-39		Da 6150B 27-7-39		Da 6152 28-7-39		Da 6163 28-7-39		Þór 40 16-12-38		Þór 43 16-12-38		Þór 44 16-12-38		Average number and normal-weight pr. 1/5 sq.m.			
Depth	41 m.		36 m.		42 m.		37 m.		40 m.		27 m.		68 m.		46 m.		38 m.		37 m.		Number		Normal-weight	
Position	64°11′5″ N 22°07′ W		64°10′5″ N 22°04′ W		64°26′5″ N 22°24′ W		64°08′ N 22°23′ W		64°08′ N 22°17′ W		64°06′ N 22°08′ W		64°22′ N 22°47′ W		64°16′ N 22°10′8″W		64°17′2″ N 21°56′ W		64°18′5″ N 21°51′8″W					
Area	1×0.2 m.²		2×0.2 m.²		1×0.2 m.²		1×0.2 m.²		2×0.2 m.²		2×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²		1×0.2 m.²					
Name of species	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Number	Weight in g.	Predominating species	Total for aminal groups	Predominating species	Total for aminal groups
Leda pernula	..	..	1	0.05	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Anomia squamula	3	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Modiola modiolus	12	313.30	26	643.00	6	14.60	15	214.00	4	72.00	4	52.00	..	..	1	6.60	..	..	8	167.70	5.9	..	125.5	..
Astarte elleptica	..	..	9	46.55	..	..	..	..	..	..	2	1.10	..	..	..	..	3	5.10	5	20.40	1.5	..	6.2	..
— montagui	..	..	..	..	..	..	..	..	2	0.20	..	..	1	0.20	..	..	..	..	..	..	..	..	..	..
Axinopsis orbiculata	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.90	..	..	..	..	..	..
Thyasira flexuosa	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..
Cardium fasciatum	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
— ciliatum	..	..	..	..	..	..	..	..	1	11.70	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Venus ovata	..	..	..	..	..	..	..	..	..	..	..	..	2	0.55	..	..	..	..	..	..	..	..	..	..
Mya truncata juv.	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Thracia truncata	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2.50	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8.5	..	133.1
Lepeta coeca	6	0.10	3	0.10	..	..	1	0.20	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..
Trochus tumidus	..	..	..	..	1	0.20	..	..	..	..	4	1.00	1	0.15	..	..	..	..	..	..	..	..	..	..
Natica clausa	..	..	..	..	..	..	1	0.60	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Lunatia pulchella	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Nassa incrassata	..	..	..	..	2	0.70	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Clathurella linearis	..	..	..	..	1	0.20	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Doris sp.	..	..	..	..	..	..	6	0.50	2	1.90	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chiton cinereus	..	..	1	0.05	..	..	..	..	1	0.05	..	..	..	..	3	0.20	..	..	3	0.30	..	..	..	..
— ruber	..	..	..	..	..	..	..	..	..	..	2	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Chætoderma nitidulum	1	0.05	..	..	..	..	..	..	1	0.05	..	..	2	0.15	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3.4	..	0.6
Lepidonotus squamatus	..	..	1	0.35	..	..	..	..	1	0.20	1	0.25	..	..	..	..	..	..	..	..	..	..	..	..
Gattyana cirrosa	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..
Harmothoe imbricata	..	..	..	..	1	0.50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Eunoe nodosa	..	..	..	..	..	..	..	..	1	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phyllodoce maculata	..	..	..	..	3	0.50	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Castalia punctata	..	..	..	..	1	0.05	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syllis cornuta	..	..	1	0.05	..	..	1	0.05	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Nephthys ciliata	2	0.30	6	1.50	4	1.10	1	0.10	..	..	1	0.10	..	..	1	0.35	1	0.20	1	0.15	1.3	..	0.3	..
— sp.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2.10	1	0.25	..	..	..	..
Goniada maculata	..	..	2	0.20	..	..	1	0.10	1	0.10	..	..	3	0.15	..	..	..	..	..	..	..	..	..	..
Glycera capitata	..	..	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Eunice pennata	4	1.50	2	1.25	..	..	..	..	..	..	..	..	1	0.60	1	0.20	..	..	..	..	..	..	..	..
Lumbriconereis fragilis	1	0.05	3	0.20	..	..	2	0.20	..	..	1	0.35	..	..	..	..	1	0.60	..	..	..	..	..	..
Scoloplos armiger	..	..	..	..	..	..	..	..	1	0.10	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..
Notomastus latericeus	2	0.10	4	0.30	..	..	1	0.25	1	0.15	..	..	1	0.45	..	..	..	..	..	..	..	..	..	..
Rhodine gracilior	..	..	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	2	0.10	1	0.10	..	..	..	..
Clymene prætermissa	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Maldane sarsi	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	0.10	..	..	..	..
Owenia fusiformis	..	..	..	..	3	0.10	..	..	..	..	10	0.45	2	0.10	..	..	1	0.05	..	..	..	..	..	..
Pectinaria granulata	1	0.10	..	..	1	0.10	1	0.15	..	..	..	..	..	..	1	0.10	..	..	1	0.20	..	..	..	..
Amphicteis gunneri	2	0.10	1	0.15	..	..	..	..	..	..	..	..	..	..	..	..	1	0.25	1	0.20	..	..	..	..
Anabothrus gracilis	1	0.10	1	0.10	..	..	1	0.15	..	..	..	..	1	0.10	..	..	..	..	1	0.10	..	..	..	..
Melinna cristata	..	..	..	..	5	0.35	..	..	..	..	4	0.30	21	1.60	..	..	1	0.05	..	..	2.4	..	0.2	..
Amæa trilobata	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphitrite cirrata	2	0.75	1	0.90	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..
Polymnia nesidensis	2	0.15	1	0.15	2	0.20	1	0.10	1	0.10	1	0.10	..	..	2	0.40	..	..	..	..	..	..	..	..
Lanice conchylega	..	..	..	..	..	..	..	..	..	..	..	..	1	0.15	..	..	..	..	..	..	..	..	..	..
Nicolea venustula	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Proclea graffii	..	..	2	0.30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Terebellides strömi	3	0.50	9	1.20	1	0.30	1	0.15	1	0.30	..	..	..	..	..	..	1	0.05	1	0.25	1.2	..	0.2	..
Potamilla reniformis	80	4.80	140	11.20	130	5.20	10	0.75	6	0.40	370	20.00	120	5.00	17	1.50	2	0.20	..	..	67.3	..	4.2	..
— torelli	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Myxicola infundibulum	1	0.30	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Euchone analis	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pomatoceros triqueter	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8	1.00	2	0.10	2	0.10	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	81.6	..	6.6
Solaster glacialis juv.	1	0.15	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Leptasterias müllerl	..	..	..	..	1	0.90	..	..	..	..	1	0.60	..	..	..	..	..	..	..	..	..	..	..	..
— hyperborea	..	..	2	0.75	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Henricia eschrichtii	..	..	2	0.25	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Amphipholis squamata	..	..	..	..	1	0.05	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..	..	..
Ophiopholis aculeata	..	..	..	..	1	1.40	..	..	..	..	..	..	..	..	3	4.50	..	..	..	..	..	..	..	..
Ophiura robusta	..	..	..	..	..	..	..	..	..	..	4	0.25	..	..	..	..	..	..	..	..	..	..	..	..
Strongylocentrotus droebachiensis	1	1.85	..	..	..	..	..	..	..	..	6	9.10	..	..	2	1.80	..	..	..	..	0.7	..	1.1	..
Echinocardium flavescens	1	5.25	..	..	..	..	..	..	..	..	..	..	..	..	1	6.90	..	..	..	..	..	..	..	..
Psolus phantapus juv.	..	..	..	..	..	..	..	..	1	0.05	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2.2	..	2.9
Eupagurus sp.	1	0.15	1	0.35	3	0.10	2	0.40	..	..	..	..	..	..	1	0.10	..	..	..	..	..	..	..	..
Hyas coarctatus	..	..	..	..	1	1.20	3	0.75	..	..	2	0.75	1	3.10	..	..	..	..	..	..	..	..	..	..
Galathea nexa	..	..	1	0.55	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Balanus balanus	..	..	..	..	1	9.00	..	..	..	..	..	..	..	..	..	..	..	..	1	3.75	..	..	..	..
Verruca strömia	..	..	..	..	cc		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Haploops tubicola	..	..	..	..	11	0.20	..	..	..	..	2	0.05	..	..	..	..	..	..	..	..	..	..	..	..
Crust. indet.	3	0.10	6	0.30	5	0.10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3.5	..	1.5
Alcyonium digitatum	3	2.30	1	1.60	..	..	2	17.90	1	9.80	..	..	..	..	..	..	..	..	..	..	..	0.5	..	2.7
Total number and alcohol weight	135	332.15	230	711.60	188+	37.35	52	236.45	27	97.40	419	86.70	159	9.45	42	23.75	18	9.80	29	196.20	..	99.7	..	..
"Normal weight"	..	365.4	..	782.8	..	40.1	..	260.1	..	107.1	..	95.4	..	10.4	..	26.1	..	10.8	..	215.8	..	..	..	147.4

Nr. 6 A. C. Strubberg: Marking Experiments with Plaice and Lemon Soles at the Færoes in 1910—12. 28 Fig. 1918. 64 p. Kr. 2.25.
» 7 Johs. Schmidt: Stations in the Atlantic, etc. 1911—15. With two Charts and introductory remarks. 1919. 27 p. Kr. 1.50.
» 8 A. C. Johansen: On the large spring-spawning Sea Herring (Clupea harengus L.) in the northwest European waters. 14 Fig. 1919. 56 p. Kr. 1.75.
» 9 A. C. Johansen and Kirstine Smith: Investigations as to the effect of the restriction on fishing during the war on the plaice of the eastern North Sea. 10 Fig. 1919. 53 p. Kr. 1.75.

Bind VI.

» 1 P. Jespersen: On the occurrence of the postlarval stages of the Herring and the »Lodde« (Clupea harengus L., and Mallotus villosus O. F. M.) at Iceland and the Færoes. 1920. 10 Fig. 24 p. Kr. 1.25.
» 2 Kirstine Smith: Danish Investigations of Plaice from the North Sea July 1919—July 1920. 1921. 2 Fig. 68 p. Kr. 4.75.
» 3 A. C. Johansen: On the Summer-spawning Herring (Clupea harengus L.) of Iceland. 1921. 4 Fig. 40 p.
» 4 A. C. Johansen: The Atlanto-Scandian Spring Herring spawning at the Faroes 1921. 11 p. Kr. 3.75.
» 5 J. P. Jacobsen and A. C. Johansen: On the Causes of the Fluctuations in the Yield of some of our Fisheries. I. The Salmon and Sea Trout Fisheries. 1921. 11 Fig. 18 Tab. 48 p. Kr. 3.50.
» 6 Johs. Schmidt: Contributions to the Knowledge of the Young of the Sun-Fishes (*Mola* and *Ranzania*). 1921. 1 Pl. 15 Fig. 13 p. Kr. 1.50.
» 7 Erik M. Poulsen: On the Frequency and Distribution of *Crangon vulgaris, Carcinus mænas* and *Portunus holsatus* in the Danish coastal waters. 1922. 4 Fig. 2 Tab. 18 p. Kr 1.65.
» 8 A. C. Johansen: On the Density of the Young Plaice Population in the eastern part of the North Sea and the Skagerak in pre war and in post war years. 1922. 10 Fig. 10 Tab. 31 p. Kr. 2.50.
» 9 J. P. Jacobsen and A. C. Johansen: On the Causes of the Fluctuations in the Yield of some of our Fisheries. II. The Eel Fisheries. 1922. 20 Fig. 6 Tab. 32 p. Kr. 2.75.

Bind VII.

» 1 A. C. Strubberg: Marking Experiments with Cod (Gadus callarias L.) in Danish Waters, 1905—1913. 1922. 17 Fig. 27 Tab. 60 p. Kr. 4.25.
Nr. 2 Kirstine Smith: Investigations of Plaice from the Western Baltic June 1921—August 1922. 1923. 6 Fig. 14 Tab. 48 p. Kr, 3.50.
» 3 Bjarni Sæmundsson: On the Age and Growth of the Cod (Gadus callarius L.) in Icelandic Waters. 1923. 8 Fig. 35 p. Kr. 2.75.
» 4 Kirstine Smith: On the Plaice Population of the Horns Reef Area in the Autumn of 1922 1923. 14 Fig. 78 p. Kr. 5.50.
» 5 A. C. Johansen: On the Summer- and Autumn-Spawning Herrings of the North Sea. 1924. 15 Fig. 119 p. Kr. 8.00.
» 6 P. L. Kramp: Fish eggs and larvæ collected in the Belt Sea in March 1922. 1924. Kr. 1.75.
» 7 Ad. S. Jensen: On the Fishery of the Greenlanders. 1925. 31 Fig. 1 Chart. 38 p. Kr. 3.00.
» 8 A. C. Johansen: On the Influence of the Currents upon the Frequency of the Mackerel in the Kattegat and adjacent parts of the Skagerak. 1925. 15 Fig. 26 p. Kr. 2.25.

Bind VIII.

» 1 Bjarni Sæmundsson: On the age and growth of the Haddock (Gadus æglefinus L.) and the Whiting (Gadus merlangus L.) in Icelandic waters. 1925. 8 Fig. 33 p. Kr. 2.65.
» 2 A. C. Johansen: On the diurnal vertical Movements of Young of some Fishes in Danish Waters. 1925. 11 Fig. 28 p. Kr. 2.25.
» 3 Martin Knudsen: A Bottom Sampler for hard Bottom. 1927. 2 Fig. 4 p.
» 4 A. C. Johansen: Preliminary Experiments with Knudsen's Bottom Sampler for hard Bottom. 1927. 3 Tab. 6 p. Kr. 1 25.
» 5 Anton Fr. Bruun: Quantitative investigations of the 0-group and I-group of the Plaice, Turbot, Brill and Sole in the Skagerak, Kattegat and Belt Sea. 1927. 6 Fig. 30 p. Kr. 2.50.
» 6 Aage J. C. Jensen: An Investigation of the Stock of Plaice in the Southern Horns Reef Area in the Years 1925 and 1927. 1928. 13 Fig. 44 Tab. 63 p. Kr. 4.50.
» 7 Bjarni Sæmundsson: On the Age and Growth of the Coalfish (Gadus virens L.), the Norway Pout (Gadus Esmarki Nilsson) and the Poutassou (Gadus poutassou Risso) in Icelandic waters. 1929. 7 Fig. 37 p. Kr. 3.65.
» 8 Aage J. C. Jensen: On the Influence of the Size of the Stock of Cod upon the yield of the Herring Fishery in the Kattegat, Belt Sea, and Western part of the Baltic, and some other causes of variations in the Cod and Herring Fisheries. 1929. 3 Fig. 2 Tab. 16 p. Kr. 1.50.

The name »Kommissionen for Havundersøgelser« has from the 1st of September 1926 been changed to: »Kommissionen for Danmarks Fiskeri- og Havundersøgelser«.

MEDDELELSER FRA
KOMMISSIONEN FOR DANMARKS FISKERI- OG HAVUNDERSØGELSER

Serie: Fiskeri.

Bind IX.

Nr. 1 Erik M. Poulsen: Biological Investigations upon the Cod in Danish Waters. 1931. 43 Fig. 29 Tab. 148 p. Kr. 10.00.
» 2 Aage J. C. Jensen: Investigations of the Plaice Stock in the southern Horns Reef Area in the years 1928—30. 1931. 7 Fig. 16 + 15 Tab. 32 p. Kr. 2.50.
» 3 Å. Vedel Tåning: Fluctuations in the Stock of Cod in Icelandic Waters. 1931. 13 Fig. 34 + 4 Tab. 43 p. Kr. 3.15.
Nr. 4 Erik M. Poulsen: On the spawning places of the herring in certain parts of the North Sea, the Skagerak, and the Kattegat in the autumn of 1930 and some earlier years. 1932. 10 Fig. 2 Tab. 17 p. Kr. 1.65.
» 5 Aage J. C. Jensen: Periodic Fluctuations in the Size of Various Stocks of Fish and their Causes. 1933. 21 Fig. 28 Tab. 70 p. Kr. 5.00.
» 6 Anton Fr. Bruun and Børge Heiberg: The "Red Disease" of the Eel in Danish Waters. 1932. 1 Fig. 1 Tab. 20 p. Kr. 1.65.

Nr. 7 A. C. Strubberg: Marking Experiments with Cod at the Faroes. II. Second Report. Experiments in 1923—1927. 1933. 13 Fig. 18 Tab. 36 p. Kr. 3.00.

Bind X.

» 1 Paul M. Hansen, Ad. S. Jensen & Å. Vedel Tåning: Cod Marking Experiments in the Waters of Greenland 1924—1933. 1935. 41 Fig. 74 Tab. 119 p. Kr. 6.40.

» 2 H. M. Thamdrup: Beiträge zur Ökologie der Wattenfauna auf Experimenteller Grundlage. 1935. 125 Fig. 13 Tab. 125 p. Kr. 5.60.

» 3 Å. Vedel Tåning: Young Herring and Sprat in Faroese Waters. 1936. 11 Fig. 15 Tab. 28 p. Kr. 1.20.

Nr. 4 Å. Vedel Tåning; On the Eggs and Young Stages of the Halibut. 1936. 8 Fig. 8 Tab. 23 p. Kr. 1.00.

» 5 P. Jespersen: Statistical Survey of the Halibut fishery in the Waters round the Faroes, Iceland and Greenland. 1938. 20 Fig. 27 Tab. 37 p. Kr. 1.20.

» 6 C. V. Otterstrøm: 125 Salmon from West Jutland. 1938. 5 Fig. 3 Tab. 26 p. Kr. 1.25.

» 7 Å. Vedel Tåning: Migration of Cod marked on the Spawning Places off the Faroes. 1940. 17 Fig. 19 Tab. 52 p. Kr. 3.00.

Bind XI.

» 1 Hermann Einarsson: Survey of the benthonic animal communities of Faxa Bay (Iceland). 1941. 19 Fig. 17 Tab. 46 p. Kr. 2.75.

As and from Bind X the size of the publication has been altered.

Serie: Plankton
„ : Hydrografi } see cover of these publications.

SKRIFTER UDGIVNE AF KOMMISSIONEN

Nr. 1 Johs. Schmidt: Fiskeriundersøgelser ved Island og Færøerne i Sommeren 1903. 10 Tavler. 1904. VI + 148 S. Kr. 5.00. Udsolgt.

» 2 Martin Knudsen: Havets Naturlære. Hydrografi. Med særligt Hensyn til de danske Farvande. 10 Figurer, 4 Tavler. 1905. 41 S. Kr. 1.75. Udsolgt.

» 3 Johan Hjort og C. G. Joh. Petersen: Kort Oversigt over de internationale Fiskeriundersøgelsers Resultater med særligt Henblik paa norske og danske Forhold. 10 Tavler. 1905. 54 S. Kr. 3.50.

» 4 Martin Knudsen, C. G. Joh. Petersen, C. F. Drechsel, C. H. Ostenfeld: De internationale Havundersøgelser 1902—07. 1908. 28 S. Kr. 0.75.

» 5 Bjarni Sæmundsson: Oversigt over Islands Fiske med Oplysning om deres Forekomst, vigtigste biologiske Forhold og økonomiske Betydning. 1 Kort. 1909. 140 S. Kr. 2.25.

Nr. 6 Andreas Otterstrøm: Sildens Afhængighed af forskellige hydrografiske og meteorologiske Forhold i Store Bælt. 2 Textfigurer. 1910. 52 S. Kr. 1.00.

» 7 A. C. Johansen: Om Rødspætten og Rødspættefiskeriet i Beltfarvandet med nogle Bemærkninger om de øvrige Flynderarter og Flynderfiskerier i samme Farvand. 23 Tavler, 14 Textfigurer. 1912. 158 Sider. Kr. 3.00.

» 8 Johs. Schmidt: Danske Undersøgelser i Atlanterhavet og Middelhavet over Ferskvandsaalens Biologi. 3 Tavler, 5 Textfigurer. 1912. 33 Sider. Kr. 1.50.

» 9 A. C. Johansen og J. Chr. Løfting: Om Fiskebestanden og Fiskeriet i Gudenaaens nedre Løb og Randers Fjord. — With an English Resumè. 4 Tavler. 42 Textfigurer 1919. 169 Sider. Kr. 3.75.

» 10 Erik M. Poulsen: Om Hummeren og Hummerfiskeriet i de danske Farvande. 6 Textfigurer. 1927. 42 Sider. Kr. 1.00.

Notice:

It is requested that notice of any error in address or other communications concerning mailing etc. of this publication is sent to: Marinbiologisk Laboratorium, Charlottenlund Slot, Charlottenlund.

A complete list of the subjects included in the finished volumes will be furnished on application.